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ABSTRACT

This annotated bibliography is intended to serve as a resource for individuals providing career development services to blind and visually impaired persons. Included in the first section of the volume is a discussion of the career development intervention strategy model. The remaining chapters of the bibliography include descriptions of works dealing with the following topics: career development literature, client assessment services, preemployment and work adjustment training, personal and social interactive capability training, client vocational education training, employment support services, attitudinal barriers, and educational needs of rehabilitation professionals. Each annotation includes bibliographic information as well as remarks concerning the given work's purpose, content, implications, and researchability. Author and subject indexes are provided. (MN)

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CAREER DEVELOPMENT OF BLIND AND VISUALLY IMPAIRED PERSONS

AN ANNOTATED BIBLIOGRAPHY

Rehabilitation Research and Training Center
on Blindness and Low Vision
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CAREER DEVELOPMENT INTERVENTION STRATEGIES FOR SEVERELY VISUALLY IMPAIRED PERSONS

One of the first tasks of the Rehabilitation Research and Training Center in Blindness and Low Vision (RT-30) has been to develop a model to guide its research activities. Because of its focus on employment of blind and visually impaired persons, career development was chosen as an underlying framework for career services. The linkage of this theoretical framework and a delineation of career services is being called a Career Development Intervention Strategy model. This model outlines ways that career services can be used to intervene in an individual's career development. The literature search from which this bibliography was drawn was conducted in order to further specify this model and to identify intervention strategies currently in use.

This introductory section contains four parts:

1. an overview of career development theory,
2. a discussion of the Career Development Intervention Strategy model,
3. a discussion of career development intervention, and
4. a brief introduction to the annotated bibliography.

CAREER DEVELOPMENT

In the context of vocational research and counseling, a career is simply the sequence of jobs or positions held by an individual during his lifetime (Super, 1969; Tolbert, 1974). A career is the work a person has done during his or her life. Career development is the process of formulating work values and a vocational identity. This constant developmental process starts long before an individual's first job or position begins and continues after the last position ends (Super, 1969).

There are many theoretical approaches to career development (Herr and Cramer, 1972; Tolbert, 1974). The focus in this introduction is on developmental theories that look at an individual's vocational development over a long period of time. Theorists and researchers using this approach have drawn on a number of other disciplines. Donald Super asserts that his approaches to career development are based in "differential development-social-phenomenological-psychology" (Tolbert, 1974). David Tiedeman uses Erickson's (1950) theory of general personality development as the underlying theory of human development (Zaccaria, 1970). Robert Havighurst (1964) synthesizes several theories to form a psychosocial theory (Crites, 1969). These developmental theorists hypothesize that an individual goes through a series of predictable stages accomplishing various necessary tasks which form the career development process.

Robert Havighurst's synthesization (1964) appears to be the career development approach with widest applicability. His six career development stages cover an individual's development from early childhood until death. As individuals are confronted by each stage and the tasks within it, a general life style and work style emerge. This life style defines the role of work and its meaning for the individual.

The first of Havighurst's career development stages, identification with a worker, occurs during early childhood. During this stage, a child acquires the concept of work, and this concept becomes a part of an individual's self-orientation during this early stage. The second stage, acquiring the basic habits of industry, occurs in early adolescence. At this time a child learns how to get a "job" or piece of work done. Staying on task and putting work ahead of leisure activities are also learned during this stage. The third stage, occurring in late adolescence and early adulthood, is acquiring identity as a worker in an occupational structure. During this stage an individual prepares in several ways for an occupation or job. The period of preemployment training, such as high school, college, or technical school, falls into this stage. At this time an individual gains initial work experiences through part-time or summer jobs. These early work experiences contribute to occupational decisions made later in this and other stages. The link between payment for work and economic independence is realized during this period.

The remaining three stages occur past the age of 25. Stage four, becoming a productive person, occurs in adulthood. This is the time when specific occupational skills are acquired. During this stage an individual is moving up or gaining increased responsibility in an occupation. Stage five, maintenance of a productive society, occurs during middle age and is when the peak of an individual's career is reached. At this point people see themselves as responsible members of the community and begin to pay more attention to civic responsibilities associated with their occupation. Often an individual's attention turns to providing guidance to younger persons in stages three and four. The final stage, occurring later in life, involves withdrawal from the work force. It is during this time that people begin to look back over their life's work and accept it as productive.

These six career development stages are not reached automatically. The tasks of each stage are not always readily accomplished. Some individuals, for a variety of reasons, need help in accomplishing the tasks necessary for movement through the career development stages. Various types of career services (e.g., Jepsen, Dustin & Miars, 1982) have been used to intervene in the career development of individuals experiencing difficulty. The purpose of the career development model is to provide a framework for identification of career service intervention strategies for blind and visually impaired people appropriate for each career development stage.

CAREER DEVELOPMENT INTERVENTION STRATEGY MODEL

For over forty years, career development theorists have been attempting to determine which clients could benefit from or need different kinds of career development services. Holland, Magoon, & Spokane (1981) report that most career interventions have similar but small effects on the career development of individuals. Fretz (1981) notes that the outcome of career intervention services might well be dependent on client career development relevant characteristics such as career maturity and career decidedness. Research also suggests that gender differences influence the outcome of career interventions (Power, et al., 1979; Fretz & Leong, 1982). Age might also affect the outcome of career development interventions. For example, Krumboltz, et al., (1982) report older males made poorer simulated career choices than females and younger males after receiving rational decision making training. These kinds of results are not unanticipated, for sociology has shown us that life experiences are different for women, blacks and other ethnic groups, lower and upper classes, and disabled persons. While it is clear that disability brings with it different kinds of life experiences, it is not clear that the career development process is differentially affected by the life experiences accompanying disability. For example, many rehabilitation counselors and employers have made erroneous assumptions about the degree of vision necessary for people to function effectively in the performance of certain occupations (Rusalem, 1972). Consequently, individuals who are

blind or visually impaired may have been encouraged to take jobs in fields requiring less vision, but they may have found these jobs unable to meet their career development needs. The effect on an individual's career development of limiting career opportunities because of disability-related factors is not known. Some work has been done which investigates the career development needs of special populations (e.g., Cook, 1977). The majority of the research focuses on the career development or vocational adjustment needs of disabled groups other than blind and severely visually impaired groups (See Vandergoot & Worrall, 1982; Bolton, 1982).

American society, with its roots in the puritan ethic (Weber, 1958) places a high value on compensated employment. As the importance placed on work has increased, the consequences of the inability to work, for a variety of reasons (illness, retirement, insufficient job training) have been shown to be psychologically and interpersonally damaging (Sheldon, McEwan, and Rysu, 1975; Komarovsky, 1940; Bakke 1969). Disabled workers not only concur with the value placed upon work by society, but as studies have shown, often hold work in higher esteem than do non-disabled workers (Goodyear and Stude, 1975; Wissman, 1965).

There is evidence to suggest that a person's attitude toward work influences the ultimate impact of unemployment. Safilios-Rothschild (1970) contends that the work experiences of some occupational groups are so negative that their work holds little intrinsic value or satisfaction. Unskilled workers from the lower classes, for

example, may find the work experience so negative that they turn a disability into an asset through the use of transfer payments and make no attempt to return to work. Professionals and white collar workers, on the other hand, often find work to be intrinsically and extrinsically satisfying. When these persons experience a disability, they are eager to return to work because they are being deprived of a satisfying experience.

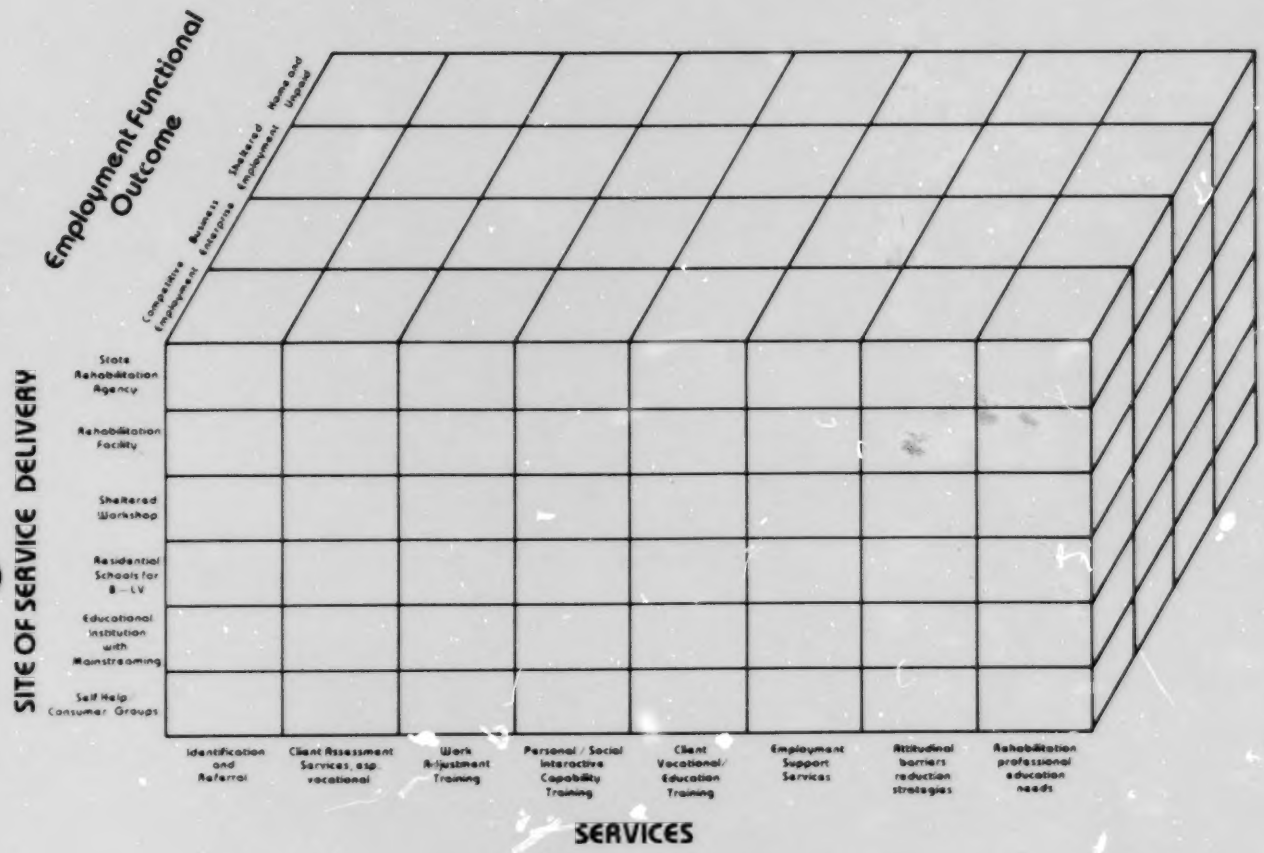
Can these kinds of generalizations be applied to persons with visual impairments? The field of blindness has placed considerable importance on the development of techniques and resources to assist visually impaired persons achieve vocational adjustment. A 1980 study of the North Carolina Rehabilitation Research and Training Center in Blindness (1980) indicated that no less than eight priority I research areas were identified by over 200 public and private organizations involved in work with blind and visually impaired people which relate directly to the career development intervention model developed by RT-30. These eight priority I areas include unemployment of blind/visually impaired persons, underemployment of blind/visually impaired persons, employment support services, career growth, job development, job identification, referral services, and societal barriers to the employment of the blind and visually impaired population.

The career development intervention model developed by RT-30 links Havighurst's career development model and career services (1964)

in a way that will enable researchers to investigate the effects of severe visual impairment on career development. The proposed model is very straight-forward. Career services, site of service delivery, and employment outcome are arranged on a cube that clearly delineates possible combinations of services, sites, and outcomes (See Figure 1). This model of interventions can function within any of Havighurst's six stages of career development.

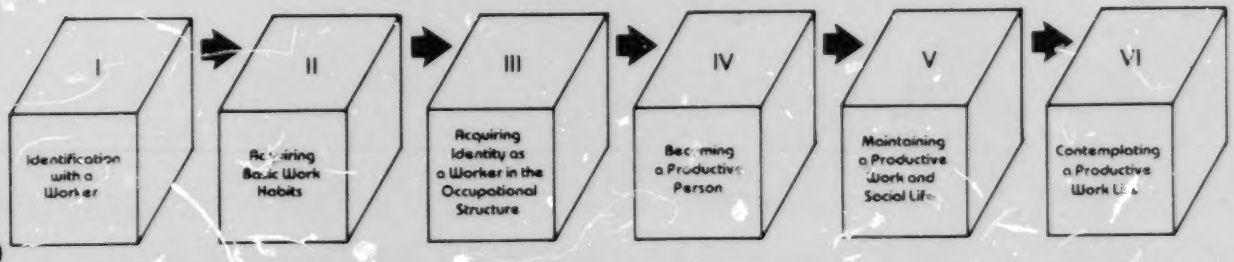
CAREER DEVELOPMENT INTERVENTION STRATEGY MODEL

INTERVENTIONS



CAREER DEVELOPMENT STAGES

(Havighurst, 1964)



Interventions may be applied within any career development stage

Figure 1

CAREER DEVELOPMENT INTERVENTIONS

Eight career service areas that appear to cover the spectrum of currently available intervention services have been identified. Along with six possible service delivery areas and four service outcomes they comprise the currently identified components of the intervention model. The services included in each of the eight employment service areas can be delivered in each of the six sites with any of four possible outcomes resulting. The career service areas will be discussed first, followed by service delivery sites and possible outcomes.

Career Services

Identification and Referral. Identification includes delineation of the visually impaired population and their career development needs. Referral involves linking individuals with services that will meet their career needs. Important issues include methods of locating potential service recipients, identifying those in need of career development services, and making linkages to appropriate services.

Client Assessment Services. Assessment is simply the evaluation of the visually impaired person in any one of several possible areas. Particularly important is vocational assessment to determine the potential for mastering skills required by a certain job. Equally important is the ability to assess an individual's current vocational skills, work abilities, and career development status. Psychological

assessments are also important in gauging the individual's personal adjustment. Assessments of social and mobility skills also provide important information. Assessment results often become the basis for planning individual training and rehabilitation programs.

Work Adjustment Training. Work adjustment services provide training in all the vocational, interpersonal and personal skills necessary to perform successfully in a work environment. A worker must be able to relate to co-workers and supervisors within a work content. Personal skills such as punctuality, task orientation, and concentration must also be developed in order to become a successful worker. Development of various work abilities such as kinesthetic memory is also a part of work adjustment training.

Included in this category are prevocational training and training in job seeking skills. Often basic concepts such as "work" must be taught. Many times an individual must be encouraged to incorporate the role of worker into his self-concept. Services covered by this category should give the individual the basic skills necessary to obtain and keep a job.

Personal/Social Interactive Capability Training. This service area covers personal adjustment and social training, particularly in areas that relate to employment. Examples of personal adjustment training that might improve employability are personal grooming, posture, appropriate dress, self-presentation, and mobility skills.

Social interactive training might include telephone skills, personal interview skills, and general social skills such as table manners.

Client Vocational Education/Training. Any type of training that contributes directly to an individual's employability can be considered vocational education training. Remedial education, college, technical school, or special vocational training programs can be included. The training must, however, be directly related to employment. Vocational/Educational guidance programs are ones which facilitate an individual's career development. Techniques which might be employed in these programs include, for example, training in rational decision making, cognitive and behavioral problem-solving training, career guidance workshops, and guided field trips.

Employment Support Services. Any service that provides help to the individual in a work setting is considered an employment support service. This help might include services from a low vision clinic, modification of machinery or the work environment, special devices (e.g., optacon or visualtech), or special services (e.g., readers or drivers). The service must provide support in a work environment even though it might also be useful in an individual's home. The service must be supportive to the extent that it enables a person to work or obtain work.

Attitudinal Barriers Reduction Strategies. The attitudinal barriers addressed here are primarily those encountered in work settings. They include attitudes held by employers and employees that act

as barriers to visually impaired workers. Negative or stereotyped images of visually impaired persons form the basis for these attitudinal barriers. These attitudes inhibit initial employment, advancement, and often successful job performance. Barrier reduction strategies are those techniques used to dispel negative or stereotyped images of blind persons. Public education campaigns are one example of a barrier reduction technique.

Rehabilitation Professional Education Needs. Rehabilitation professionals need specialized educational programs in order to provide services which lead to the employment of visually impaired clients. These educational needs might be met through continuing education programs, university education, and other professional education opportunities. The content of these programs might fall within any of the areas previously described.

Site of Service Delivery

Six possible service delivery sites have been identified. Career services included in the eight categories just described could be delivered through each of these sites.

State Rehabilitation Agencies. Each U. S. state and territory has an agency that provides vocational rehabilitation services to blind and visually impaired persons. Some of these agencies run various direct service facilities, while others provide basic counseling, referral, and placement services. These agencies are

funded in part by the Federal government and are subject to certain Federal operational regulations.

Rehabilitation Facility. Included here would be any facility providing rehabilitation services to visually impaired persons that are not included in any other category. Some of the services these facilities might provide are personal adjustment services, orientation and mobility training, prevocational training, low vision services, and medical services. Many rehabilitation facilities are independently operated. Others are associated with state vocational rehabilitation agencies, sheltered workshops, and medical centers.

Sheltered Workshop. Any work setting that is protected for handicapped individuals falls into the general category of sheltered workshop. There are several types of workshop programs including a "regular work program," a "work activities center," a "training program," and an "evaluation program" (Whitehead, 1979). Many sheltered workshops operate more than one of these programs. Work activity centers are generally for persons whose impairments are so severe that their productive capacity is non-competitive. Regular work programs strive to support themselves through the production of articles of value in the market place.

Many sheltered workshops employing a majority of blind persons are affiliated with the National Industries for the Blind (NIB). NIB negotiates contracts and provides assistance to rehabilitation programs in affiliated workshops.

Residential Schools. Residential schools for blind and visually impaired children provide elementary and secondary educational services. Many residential schools have day and outreach programs. In addition to usual educational curriculum, many residential schools provide prevocational training, assessment services, and social services. Over the past few years the characteristics of students in residential schools have changed. Today these students tend to be multiply handicapped and more severely disabled.

Educational Institution with Mainstreaming. With the passage of Public Law 94-142, education within public school systems became more accessible to visually impaired children. Many school systems now have special programs for visually impaired students. The children who typically utilize these elementary and secondary programs are not multiply handicapped; many visually impaired students who are less severely disabled are mainstreamed into the regular school program.

Self Help/Consumer Groups. The national organizations of blind persons sometimes sponsor special programs to aid their members. Referral and identification of specialized resources [illegible]ne service frequently provided. At the local level, self-help groups have been organized as part of the 1970's self-help movement. These groups offer peer support as well as concrete services which may impact on the career development of the visually impaired consumer.

Employment Outcome

Four possible service outcomes were identified which correspond to the employment categories used in vocational rehabilitation programs. Any of these outcomes could result from any one of the eight services, regardless of the delivery site.

Competitive Employment. Competitive employment generally refers to employment within sighted industry: in other words, employment in a competitive setting. Visually impaired persons who are competitively employed are working at the same productivity level as are sighted workers.

Business Enterprise. The business enterprise program (BEP) is administered through State Vocational Rehabilitation agencies under the Randolph-Shepard Act. This program is sponsored in part with Federal funds. Business enterprises are typically vending, short order, or cafeteria style stands. The Randolph-Shepard Act established a priority for locating stands operated by blind persons in Federally operated facilities such as post offices, military institutions, or office buildings.

Sheltered Employment. A sheltered workshop provides sheltered or protected employment. It is important to remember that sheltered workshops vary. Often employees are working at a highly competitive rate.

Home and Unpaid Work. Any individual who is employed but not salaried is a home or unpaid worker. Homemakers or home workers are employed within their own homes and are providing care for their own families.

CAREER DEVELOPMENT

INTERVENTION STRATEGY MODEL BIBLIOGRAPHY

This publication presents an annotated bibliography reflecting a literature search on the subject of employment of visually handicapped persons. The search was limited to professional journals, monographs, or research reports prepared since 1970. Each pertinent article was abstracted; each abstract contains the following parts:

Purpose -- a short (usually one sentence) statement of the author's underlying thesis.

Content -- a reiteration of the contents of the article, concentrating on information concerning employment of visually handicapped people.

Implications -- the explicitly and/or implicitly stated inferences drawn from the theory, research, or case studies discussed in the article.

Researchability -- a presentation of ideas discussed by the article's author which either need further refinement or which indicate areas of needed research and investigation.

Each abstract is organized into one of eight sections. The first section contains some basic career development literature. The other seven cover service delivery areas as presented in the Career Development Intervention Strategy model:

Client Assessment Services

Work Adjustment Training

Personal/Social Interactive Capability Training

Client Vocational Education Training

Employment Support Services

Attitudinal Barriers Reduction Strategies

Rehabilitation Professional Education Needs

This particular format was chosen in order to highlight the research in each career service area.

Many conclusions can be drawn from the information contained in this annotated bibliography. It is apparent that most articles in the literature contain theory and case studies. Few rigorous research projects are reported. No articles fit into the service delivery area "Identification and Referral" of the Career Development Intervention Strategy model. There are a sprinkling of articles in most other service categories; most abstracts fit best into the "Employment Support Service" category.

A review of Site of Service Delivery categories further reinforces the theoretical and case study emphasis of the majority of the literature. There are very few articles that identify an Employment Functional Outcome. The scarcity of articles in many areas of the model serves to point out the need for more rigorous research into employment of blind and visually handicapped persons.

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CAREER DEVELOPMENT

LITERATURE

Holland, J. L., Magoon, T. M., & Spokane, A. R.
COUNSELING PSYCHOLOGY: CAREER INTERVENTIONS, RESEARCH, AND THEORY.
Annual Review of Psychology, 1981, 32, 279-305.

Purpose:

This article presents a detailed focus on the specific areas of vocational assistance as they relate to the field of counseling psychology

Content:

The authors have divided the article into four main sections, each of which contributes greatly and plays a vital role in continued execution and research in vocational counseling. The four sections are:

(A) Career Interventions. Career counseling, group treatments, instructional materials, occupational information, and interest inventories are listed as the method(s) most commonly associated with counseling. A very interesting result of recent studies indicates that, contrary to what might be believed, a Ph.D. career counselor is, in fact, no more adept at helping one choose a career than are traditional interest inventories. In support of this finding, the authors state that advancement of current theory in counseling psychology is progressing towards the development of new treatment rather than the refinement of old techniques such as the interest inventories.

The authors also list the most empirically successful instruments along with their definitive purpose for retrieval of information. They have found that there is a positive correlation between the clearness of a client's sense of identity and the benefits he obtains. Perhaps the most successful treatment is to use the above listed techniques to offer vocational advice.

(B) Vocational Research. Besides the major area of bias in career intervention, this article focuses on the origin and life history of an individual and how these relate to a chosen profession. Results indicate that parent-child correlation for biological families is higher than for adoptive families, and parents who have similar career intersts appear to have more of an impact on their children's vocational choices than do parents who have divergent interests. The authors also review research data in the area of career patterns and processes, career decision making, and biases, barriers, and interventions. The last of these topics is expanded to include ideas such as the "basis for forming ideals comes from the way options are presented and reinforced." Also included in this section are studies which were designed to eliminate some known methodological flaws.

(C) Speculation and Theory. Under speculation, the authors state that succinct monographs and very detailed accounts focus from the

outset of developmental interests up through formulation of new ideas and proposed continuums. A study conducted by Magoon in 1980 proposed an increase in group work and consultation, along with a decrease in one-to-one interviewing. This article also refers to different theories as they relate to vocational counseling. These theories are scrutinized and elaborated on in terms of their effectiveness.

(D) Achievements and Possibilities. The authors list broadly stated advancements which encompass the entire spectrum of vocational counseling. Briefly paraphrased, they are:

1. Researchers and practitioners now have a greater number of treatments to choose from due to the increase in number and variety of career interventions.
2. Highly structured treatment which includes multiple evaluations using divergent techniques have proven to be highly successful.
3. An ideal intervention strategy would include making occupational information accessible to the client, clarifying the client's self-picture and vocational potential, rehearsing a career problem or plan either in a group or individually, receiving support for choices made, and developing a comprehensive and cognitive plan for evaluating one's self as well as available occupational alternatives.
4. Understanding of sex role socialization in terms of how occupational goals are probably formed, maintained, and modified is now more complete.
5. Changing and revising classification systems for occupations has had a substantial effect not only on prospective clients but also on counselors and reseachers as well.

Implications:

Over the past fifteen years, the study of careers has become important to an increasing number of social science fields. From this article one can deduce that many of the traditional theories and practices used in vocational counseling are now obsolete and have been amended. Diverse studies are now providing substantial and reinforcing ways to enrich the quality of current vocational counseling.

Researchability:

The article lists several needs which, when filled, will enhance current theories and lead to more useful findings:

(A) more rigorous evaluations of all intervention instruments,
(B) analytical evaluations in which client goals are assessed in conjunction with treatment and goal attainment scaling,

(C) development of more potent treatments by use of an eclectic paradigm, and
(D) investigation of the ordering effects of treatment chains.

Throughout the article, ideas for further research are given which will help expand newly instituted studies as well as confirm previous results.

Spain, J. B.
EMPLOYMENT OF HANDICAPPED PEOPLE: AN ENIGMATIC FUTURE.
Journal of Visual Impairment and Blindness, 1981, 75, 122-125.

Purpose:

This article presents a general overview of the progress made in the employment of the handicapped during the past ten years, an analysis of some of the problems that still exist, and a look into the future.

Content:

The discussion of the past ten years is highlighted by specific legislation and an increasing tendency for handicapped people to organize and lobby for equal rights.

Some of the problems that still exist despite progress include a lack of qualified handicapped workers, a definition of "reasonable accomodation" (the obligation of the employer), and the enforcement of some of the legislation passed during the past ten years.

Enough qualified handicapped workers are not available because they are not being trained properly. Often handicapped individuals are trained for jobs that hold no possibility of future advancement. Workers also often have negative self-perceptions, and frequently eliminate themselves before they really ever get into the competition. There is hope in this area, however, and it lies in the operation of good training programs.

The training program at the University of Cincinnati is one specifically cited for its good work. One factor to keep in mind when training handicapped individuals is the future labor market. Obviously training should be aimed in directions of predicted growth and aimed away from declining occupational areas. Handicapped consumers are demanding not only the right to compete for a job on the same basis as everybody else, but also the right to an education integrated with non-handicapped individuals, the right to live in a community, and the right to vote.

The author presents the following documented facts:

1. Handicapped people are often at least as productive as other people; they can be more productive.
2. Handicapped workers can have better safety records than non-handicapped workers.
3. Handicapped people lose no more time from the job than non-handicapped people; they often lose less.
4. Handicapped people do not jump from job to job.
5. Handicapped people in the workforce tend to raise morale in the workplace.

The article concludes with a request by the author to strive to recognize handicapped persons first as human beings with just one extra area of diversity.

Implications:

Good training programs are essential to getting visually impaired individuals prepared not only for a job but for the right job. Programs such as the one in Cincinnati have placed these individuals as computer programmers and system analysts with good starting salaries. White collar employment is well-suited to the visually impaired person, and training should focus in this area.

Researchability:

The problem of "reasonable accomodation" mentioned earlier could be lessened by research into development of lower cost accomodation procedures. Also, there is a need to create a national agency that could match blind individuals with jobs that they are qualified for. This would be an immense help in increasing placement efficiency.

Link, H. J.
PLACEMENT AND EMPLOYMENT OF THE VISUALLY IMPAIRED: STATE OF THE ART AND IDENTIFICATION OF UNMET NEEDS.
The New Outlook for the Blind, 1975, 69, 320-324.

Purpose:

This article reports on legislation that has opened up jobs for blind people, describes specific employment areas, and presents the results of a survey assessing unmet needs.

Content:

The history of Federal legislation affecting the visually disabled population was reviewed, and the impact of Sect. 503 and 504 of the 1973 Rehabilitation Act on hiring practices toward disabled persons was discussed. A listing of professional occupations which have attracted blind persons in the past few decades includes: computer programmers, teachers, lawyers, taxpayer service representatives, information expeditors, medical transcribers, technical writers, chemists, electrical engineers, managers, personnel officers, and a psychiatrist. Paraprofessional occupations listed include occupational therapy assistant, physical therapy assistant, and vending stand operator.

Surveys identified barriers to the employment of visually impaired persons as:

1. the lack of sufficient manpower, closure demands, and the "numbers" mentality of state agencies;
2. the less than adequate service provided to multiply handicapped/visually impaired persons;
3. the inadequate use of work activity centers for multiply handicapped persons;
4. the underdevelopment of the personal, social, and vocational skills of visually impaired children and young adults;
5. the lack of confidence among employers and rehabilitation professionals in the capability of visually impaired persons to function successfully in competitive employment;
6. the lack of strong prevocational evaluation and training; and
7. the fear by the visually impaired person of losing Social Security Insurance and Disability benefits on achieving substantial gainful employment.

Unmet needs of visually impaired persons related to their unemployment were identified as:

1. demographic studies of the visually impaired population by states, age, nature and extent of impairment, number of underemployed, scholastic level, vocational potential, and present occupations;
2. increased utilization of vocational and technical schools;

3. improved preparation of placement skills among rehabilitation professionals;
4. maximum acceptance of placement as a fully professional commitment and function;
5. knowledge by rehabilitation personnel of the manpower demands, i.e. skills required and number of positions, in competitive employment;
6. utilization of community, state, and Federal resources;
7. realistic and follow-up/on-going services to visually impaired persons in training or in employment;
8. reduction of employer resistance; and
9. adequate training in coping skills, daily living skills, and interpersonal skill development.

Implications:

Improved placement activities which result in better career opportunities for the visually impaired individual require the removal of significant barriers within and external to the rehabilitation system. Commitment from the agency and individual rehabilitation professionals to seek the needed internal and external changes will lead to improved opportunities for this population.

Researchability:

The article presents numerous needs in the field, but no single idea or concept is discussed in depth, and no comprehensive or detailed program designed to alleviate or fill these needs is presented. Further exploration must be done to be able to impact on the issue(s) raised by the article.

CLIENT

ASSESSMENT SERVICES

Wilson, E. L.
ASSESSING THE READINESS OF BLIND PERSONS FOR VOCATIONAL PLACEMENT.
The New Outlook for the Blind, 1974, 68, 57-60.

Purpose:

This article explores assessment of vocational readiness from many different perspectives; the need for a specific, personalized readiness assessment program is emphasized.

Content:

The assessment of readiness to enter or re-enter the world of work is dependent on many factors which encompass both the individual and his environment. An overview of the entire situation must be made before adequate readiness assessment can be achieved.

The emphasis in rehabilitation should be on self-help and productive work as well as on the financial aspects. Self-help and productive work serve to increase an individual's self-esteem and determination to prove himself. These factors, especially in the early stages of rehabilitation, are extremely important for developing a base for future productivity.

The author lists general areas for determining readiness:

1. Physical readiness: mobility, strength, etc.
2. Psychological readiness: sincerity, motivation, understanding of limitations and capabilities, etc.
3. Occupational readiness: skills that meet job needs, flexibility, etc.
4. Placement readiness: knowledge of sources of job leads, interview skills, etc.

These factors alone should not be the only considerations in assessing readiness. One key element is the personality of the individual. A counselor who is a good listener should be able to assess this adequately.

Mention is made of the importance of placing an individual in a work setting as soon as he is ready, even though he may not have completed the total rehabilitation program. The values experienced by an individual often serve to increase the speed of his rehabilitation in other areas to the extent that even counseling becomes a secondary concern.

Many congenitally blind students who possess a low skill potential and are unprepared for work benefit most by experiencing productive work. They appear to gain a measure of motivation that is the starting point for vocational development.

The author concludes that to use readiness as an employment criteria for members of this population is to deny them the initial experience from which all other experiences grow. An initial productive employment may be the best therapeutic technique available.

Implications:

The range of employment opportunities is unlimited if the assessment of readiness is specifically suited to an individual. The key to success is a sensitivity on the part of the rehabilitation facility and a willingness to place individuals at the first proper opportunity.

Researchability:

An attempt to compare progress of a person through a rehabilitation program with progress of an individual who is placed in employment before completing a rehabilitation program would be helpful. Any differences between the two groups could be quantified and the relative strengths and weaknesses of each approach analyzed. Self-report measures given to blind students would provide yet another approach.

Fretz, B. R., & Leong, F. T. L.
CAREER DEVELOPMENT STATUS AS A PREDICTOR OF CAREER INTERVENTION OUTCOMES.
Journal of Counseling Psychology, 1982, 29(4), 388-393.

Purpose:

This article describes a study designed to examine the effectiveness of diagnostic schemes in predicting the outcomes of career interventions.

Content:

One hundred and twelve undergraduate students were administered a series of assessment scales measuring career development status, vocational identity, goals, commitment to career counseling, and general personality. A career inventory, the Self Directed Search (SDS), was then administered. At a follow-up session career outcomes were measured. Outcome measures included satisfaction with the SDS and career choice and career behavior measures.

The major analysis consisted of a step-wise regression. Outcomes for men could not be predicted as effectively as for women. Satisfaction with the SDS was correlated with several predictor variables such as degree of ego-strength and less indecision on the career decision scale. Higher satisfaction with job choice was predicted for men by less perceived need for occupational information. For women higher satisfaction was predicted by a higher rating of the goal of obtaining training information and less indecision concerning career choice. Findings suggest that those people who are already in relatively good status are the ones who benefit most from typical intervention.

Implications:

Although this study was conducted with non-handicapped individuals, it is possible that the findings are applicable to visually impaired individuals since handicapping condition is the only extraneous variable.

Researchability:

This study seems to be limited in external validity. It can be generalized only to non-handicapped college students. Additional research replicating this study using more appropriate target populations for vocational rehabilitation, such as visually impaired subjects, would be a lucrative area for future research. Cross-validational studies for this study, as well as for future ones, are essential to ensure validity.

In future studies, other personality measurement instruments might be used and found to be even stronger and more reliable predictors. Two such measures of personality which might be prime candidates for such research are the California Personality Inventory and the Myers-Briggs Type Indicator.

Overall, this seems to be a well-designed study, and its vigor and empirical method should serve as a good model for future research in the field of vocational rehabilitation for the visually impaired.

Lombana, J. H.
CAREER PLANNING WITH VISUALLY HANDICAPPED STUDENTS.
The Vocational Guidance Quarterly, 1980, 28, 219-224.

Purpose:

This article stresses the counselor's role in career planning and focuses on the development of the client's self confidence and personal and social skills and the reduction of negative attitudes toward blind persons. A comprehensive career planning program is proposed to accomplish all three functions.

Content:

Barriers to career decision making by visually handicapped students are discussed. One barrier is the inaccessability to blind students of job information. To help students develop realistic goals and expectations and obtain basic information about the world of work, counselors need to involve the family, the school, and the community.

Many basic personal and social skills that are taken for granted by sighted students require special attention for severely visually handicapped people. It is essential that the blind student become adept in orientation and mobility. The development of appropriate posture, gait, and other nonverbal mannerisms is vital to the visually handicapped person entering the world of work.

Most educational and psychological tests were not developed for or standardized with blind students. Therefore, administration is frequently difficult and interpretation open to question. This article lists several guidelines for administration of these tests:

1. Allow the student to make the best use of residual vision; provide bright lights without glare.
2. Allow the student to determine how far to be from the test material and whether to use low-vision aids.
3. Make special efforts for tension reduction.
4. Provide special instructions for the student with no useful vision.

If a visually impaired student has been able to receive appropriate training for academic work, personal management skills, and career planning, the vocational possibilities are great. Four factors which should be used in examining an individual's ability to succeed in a given job are:

1. ability to meet the physical demands of the job to accomplish tasks efficiently;
2. not being a hazard to self;
3. not jeopardizing the safety of others; and
4. not aggravating the disability.

Implications:

Through the implementation of a comprehensive career planning program, the counselor can serve as a significant force in job placement for visually handicapped students. In addition to coordinating and assisting in the development of appropriate employment skills, the counselor can work with various community agencies to seek placement and needed services for the student.

Researchability:

The article touches on several general issues that could be researched in much greater depth to help the counselor mainstream visually impaired clients. There is a great need for development of career oriented materials and programs teaching vocational and social skills for the blind or partially sighted student.

Bax, D. D.
COMPUTER PROGRAMMER APTITUDE TEST FOR THE TOTALLY BLIND.
Journal of Rehabilitation, 1982, 48(3), 65-68.

Purpose:

This article describes the development of a computer programmer aptitude test for use with totally blind persons.

Content:

The job market for computer programmers is competitive, active, and expanding. Opportunities for jobs in this field for the totally blind person are increasing. A problem that stands in the way of their employment, however, is the fact that employers use visually-oriented measurement instruments (such as standardized aptitude tests) to assess the employability of the blind individual. The staff at the New York Jewish Guild for the Blind has attempted to overcome this problem by developing a computer programmer aptitude test for use with totally blind individuals.

The team which worked on the aptitude test consisted of a psychologist, a placement specialist, a vocational evaluator, and a computer programmer specialist. The test consists of four sections: verbal meaning, number series, number ability, and reasoning. The prime purpose of this specially developed test was to assess traits such as concentration, memory, recall, and attention span, traits usually more highly developed in a totally blind person than in his sighted peer. The traits are important factors contributing to a blind person's acquisition of programming skills.

Finally, it was stressed that the test should be administered in Braille (not always done previously) therefore putting the blind person in a less biased position.

So far the test has been used on six totally blind individuals. Results indicate that the test does have potential for the unbiased assessment of a blind individual's aptitude for computer programming.

Implications:

Computer programming is not the only field where assessment of blind individuals' aptitudes is biased due to use of tests based on visual norms and standards. Assessment procedures in every field and area of employment for the blind population should be reviewed for such bias and should be modified accordingly.

Researchability:

There is much room for research in the area of modification of existing biased assessment procedures so that they apply to the totally blind population. All such tests, including the above aptitude test, must

be subjected to empirical validation before being put into general use. As with the aptitude test for blind computer programmers, such tasks as standardization, testing larger samples to secure blind norms, and correlating these tests with existing standardized sighted tests are essential. Finally, empirical testing for reliability and validity should be conducted before the tests are published and recommended for use with the general blind population.

Kunce, J. T., Iacono, C. & Miller, D. E.
DETERMINATION OF CASELOAD FEASIBILITY.
Journal of Applied Rehabilitation Counseling, 1974, 5(4), 215-219.

Purpose:

This article proposes a statistical system whereby a client can be objectively evaluated (prior to rehabilitation) as to his potential for success after rehabilitation is finished. This allows for an accurate determination of appropriate caseloads for rehabilitation counselors.

Content:

The system is based on 12 personal characteristics obtained from a standard form filled out by clients upon entrance into a rehabilitation program. These characteristics (age, marital status, welfare status, etc.) are statistically weighted, and a total score is obtained for each client. This score can determine to varying degrees the degree of success to be achieved by the client after rehabilitation.

The study was conducted with 595 clients from two agencies for the blind. Correlation coefficients (relating total weighted score and an earning-based measure of success) were quite accurate for blind clients, moderately correct for physically disabled clients, and nominally predictive for clients with mental or emotional disabilities.

The major application of this data made by the authors is the determination of appropriate caseloads for rehabilitation counselors. If used properly with an adequate understanding of the system's potentials and limitations, this can be an effective tool for vocational rehabilitation of blind/severely visually handicapped clients.

Implications:

Many of the implications of this article are directed at rehabilitation counselors. It is useful, however, to realize that if an individual obtains a low score on this system, then he will know in advance that he will have to work that much harder to be occupationally successful.

Researchability:

A replication of this study would be appropriate, not because the original study had problems, but to increase confidence in its results. Also, a major area of research that might be undertaken is an effort to determine why those individuals with certain characteristics are less likely to be successful and what might be done to change this.

Shackleton, V. J., Wild, J. M., & Wolffe, M.
EMPLOYMENT PROBLEMS OF PARTIALLY SIGHTED SCHOOL-LEAVERS: METHODS OF OBTAINING INFORMATION.
Journal of Visual Impairment and Blindness, 1981, 75, 179-181.

Purpose:

This article outlines the methodological difficulties of collecting psychological and biographical data on the population of interest; it reports on methods of overcoming these difficulties.

Content:

Partially sighted adolescents experience a high level of job failure and unemployment. Ophthalmic and psychological factors are being investigated since it is thought that both interact to affect occupational success. To study the various aspects, it is necessary to collect information from partially sighted adolescents about their range of occupational experiences. Clinical information is being obtained while the subjects are in their final year at school. Approximately one year after the individuals leave school, information is sought on:

1. occupational status,
2. number of jobs held,
3. satisfaction with the present job, and
4. other psychological factors.

Implications:

The results noted have important implications for the collection of information from similar clinical studies. Social science literature has shown that there is a variety of research techniques that yield acceptable response rates.

Researchability:

Research is needed into the relationship between visual ability and job ability; this is a complex relationship since it is thought that ability to use residual vision is independent of distance visual acuity.

Benton, R. B., Permenter, N. A., Baylor, J., & McLeland, P.
EVALUATING THE WORK POTENTIAL OF BLIND MULTIPLY HANDICAPPED PERSONS FOR THE MANUFACTURE OF BATH PERFUME.
The New Outlook for the Blind, 1974, 68, 20-24.

Purpose:

This article reports on a project attempting to prove that blind multiply handicapped persons can engage in work behaviors at a competitive level.

Content:

To evaluate the work potential of blind, severely retarded, multiply handicapped persons, a model project involving the manufacture of bath perfume was set up within an already existing program. While little attention has been given to this group of handicapped persons beyond the work evaluation stage, their needs are anything but small.

The choice of enterprise was determined by criteria delineating:

1. something which blind mentally retarded persons could easily handle using senses other than sight,
2. a process not easily automated,
3. involvement of a minimal investment of raw materials, and
4. a marketable product.

The objective was solely to test the idea and determine how successfully blind mentally retarded clients could work together in a sheltered workshop activity. Although the National Industries for the Blind had previously explored the cosmetics industry and found it a limited medium for the blind, it was recommended that this proposal be tested on a small scale and be accepted or rejected on the basis of actual facts and figures. In spite of several minor problems such as glass breakage and mislabling, there was an 83% success rate out of the 58 clients attempting to work on the production crew.

Implications:

The results of this experiment suggest that blind multiply handicapped persons have or can acquire work skills which permit them to participate in competitive production tasks. The experiment also raises the question of whether or not the National Industries for the Blind's statement against the adaptability of the cosmetic industry in meeting the needs of blind workers is still valid.

Researchability:

Conclusions cannot be drawn from such a limited study. Before definitive statements can be made regarding the adaptability of such enterprises, previous studies must be carefully scrutinized and further research conducted on a larger scale. If after such steps positive results are found, the research could be directed at increasing the spectrum of such enterprises to include all categories of blind individuals.

Baker, S., White, P., Reardon, R., & Johnson, P.
AN EVALUATION OF THE EFFECTIVENESS OF AN ADAPTATION OF THE SELF-DIRECTED SEARCH FOR USE BY THE BLIND.
Rehabilitation Counseling Bulletin, 1980, 23(3), 177-182.

Purpose:

This study evaluates an adaptation of the Holland Self-Directed Search (SDS) for use with blind/visually impaired individuals which allows people to have more input into planning their careers without the aid of a counselor or reader.

Contents:

The author used a single group pretest/posttest design. The population consisted of 26 legally blind individuals ranging in age from 17 to 49. Eleven were graduating high school seniors, while 15 were volunteers from a rehabilitation work experience program. Each subject was given:

a. A tape of the SDS;
b. The Occupation Finder, a booklet listing 500 occupations used in the SDS;
c. The Occupational Daydreams Notebook alphabetically presenting the same 500 occupations; and
d. Understanding Yourself and Your Career, a pamphlet explaining the SDS and its theory.

Responses were recorded by having students place wooden pegs on a pegboard. Pretest instruments included the Student Interest Questionnaire and the Vocational Guidance Pretest Questionnaire. Posttests used (24 hours later) included a Student Opinion Form and a Vocational Guidance Questionnaire I. Follow-up consisted of the Vocational Guidance Questionnaire II.

The effectiveness of the SDS was judged using seven criteria:

1. Increase in number and consistency of occupations being considered;
2. Decreased interest in finding out general information about self and occupations;
3. Increased interest in finding out specific information about jobs and training programs by individuals whose occupational choice is confirmed by the SDS;
4. Increased certainty and satisfaction about vocational plans;
5. Increased vocational information seeking two weeks after taking the SDS;
6. Demonstration of the ability to apply Holland's theory (on which the SDS is based);
7. Positive user evaluation of the SDS.

The results showed significant differences in areas 1, 2, 4, and 7. The authors concluded that the SDS can be successfully adapted for use by the visually impaired population.

Implications:

This study illustrates how a career planning instrument used by the sighted population can be adapted further to open up the field of vocational exploration for visually impaired clients. This also allows the client an element of greater self-control over the career exploration.

Researchability:

The authors point out two limitations: First, the subjects were not randomly selected. Second, the number of subjects was too small. The authors suggest replications with a larger random sample. In addition, no control group was used. Future work should use a multiple baseline as a check on factors related to maturation, etc. In addition, the follow-up should be long term and use actual careers.

Vander Kolk, C. J.
INTELLIGENCE TESTING FOR VISUALLY IMPAIRED PERSONS.
Journal of Visual Impairment and Blindness, 1977,
71, 158-163.

Purpose:

The author compares results on standard intelligence tests of visually impaired people versus those of sighted individuals, and attempts to pick out areas where visually impaired people show strengths and weaknesses.

Content:

A review of research on intelligence testing with people who are blind is presented, and comparisons between sighted and various visually impaired groups are made. Generally, visually impaired people, as a group, obtain scores on intelligence tests substantially equal to those of the sighted population. While sighted and visually impaired groups are similar in mean I.Q. scores, evidence was found to suggest that intellectual factors are differentially developed in people who are visually impaired:

1. Attention span and concentration factors are significantly more developed.
2. Articulation and conceptualization of cognitive processes are significantly underdeveloped.

The relation between intelligence and subgroups of people who are blind is also analyzed. No overall difference was found between people who had been blind for different time periods, and there was some evidence that no general differences between I.Q. scores of totally and partially blind persons existed. Etiologies of visual handicaps were found to correlate significantly with intelligence in some cases. Loss of vision due to pathology in, or trauma to certain areas of the central nervous system was directly correlated with lower I.Q. scores. Damage to occipital regions of the brain resulted in slower performance of tasks demanding speed and sustained attention.

While it was proposed that attendance at a public versus a residential school for the blind could have some effect on intellectual function, thus far no studies have addressed this question.

Implications:

There are strong implications presented for assessing visually impaired individuals' attention span and concentration abilities in vocational evaluations. Strengths which are likely to be found in these areas may suggest occupational fields that make use of such well developed abilities, usually skilled occupations. It should be stressed that if verbal I.Q. scores are being used to predict success of visually impaired individuals in academic areas, further information is needed. Literal verbal understanding may be coupled with inadequate comprehension of application.

Researchability:

Since all studies dealing with intellectual assessment of visually impaired people have almost exclusively been associated with agencies, a truly representative sample has not been tapped. For valid conclusions to be drawn which apply to all people who are blind, a more representative sample must be acquired.

Further clarification and research effort is called for in the area of intelligence dealing with verbalism. It is suggested that while a blind person may be able to learn words and concepts in a literal verbal manner, he may not really understand their concrete, functional concept. This problem may well carry over into vocational and rehabilitation training. Insight into this area would assist in development of more effective and productive training programs.

Studies are also needed to examine the differences in intelligence between visually impaired persons attending residential versus sighted schools. Advantages of one or the other would more adequately prepare visually impaired individuals for entrance into competitive employment markets.

Finally, research capitalizing upon the visually impaired individual's probable strengths of attention and concentration may identify many new areas for potential occupational excellence.

Zimmerman, B.
THE JEVS WORK SAMPLE PROGRAM.
Paper presented at Use of Work Samples with Blind Clients, Conference, New Orleans, LA, February, 1975. In M. K. Bauman (Ed.), Use of Work Samples With Blind Clients. Philadelphia: Nevil Interagency Referral Service, Inc., 1975, 45-47.

Purpose:

This article relates how an employment and vocational agency is attempting to adapt their particular work sample system for use with blind clients.

Content:

The Philadelphia Jewish Employment and Vocational Service (JEVS) is primarily involved in the field of vocational evaluation and its application to a variety of groups. Working with blind and visually impaired persons is, however, a new area of concern for the agency. It has developed its own system of work sampling over the years and is currently attempting to adapt it for use with newly acquired blind clientele. The agency considers its approach to work sample evaluation new in that it is used to assess work factors, skills, interests, and work-related behaviors, and not for job selection or training purposes.

The evaluation staff works with a client over a considerable period of time to repeatedly measure factors in several tasks and in multiple combinations with other factors. The work samples are not matched one-to-one with a specific job and are used only to find appropriate areas of work, work adjustment, or training. This allows for an expansion of horizons within a variety of related vocational areas and permits mobility and flexibility. This is particularly important for people who are blind because it gives objective evidence that an individual has the skills for a job.

Since the JEVS is new at working with blind clients, it is attempting to find and measure specific work factors that are involved when vision is impaired or absent. It is currently looking at skills such as tactile positioning sense, attention to auditory cues, and equipment monitoring. It requests input, feedback, and suggestions from those who work with people who are blind in vocational evaluation, counseling, and rehabilitation, in an effort to assist its attempts to modify current work samples.

Implications:

Evaluation of people who are blind or visually impaired with work samples presents unique problems and factors not necessarily found with other handicapped clients. Before preexisting work samples are used with such clients, evaluators must be sure they fairly and adequately test this particular population.

Researchability:

Extensive research is needed to adapt preexisting work samples for use with blind individuals. Concurrent and predictive validity studies are a must before a work sample can be confidently applied for use with people who are blind.

Holland, J. L, Gottfredson, D. C., & Power, P. G.
SOME DIAGNOSTIC SCALES FOR RESEARCH IN DECISION MAKING AND PERSONALITY: IDENTITY, INFORMATION, AND BARRIERS.
Journal of Personality and Social Psychology, 1980, 39(6), 1191-1200.

Purpose:

This article describes an attempt to develop a system that will facilitate career decision making.

Content:

According to the authors, difficulties in making career decisions can be attributed to one or more of the following:

1. problems of vocational identity,
2. lack of information or training,
3. environmental or personal barriers, or
4. no problems encountered.

Based on this premise, an attempt is made to devise a more facilitative scheme for the decision-making process.

A two-page form was developed, using three scales:

1. Vocational Identity.
2. Occupational Information, and
3. Barriers.

Items chosen for the scales came from two previous scales:

1. the Vocational Decision-Making Difficulty Scale (VDMD), and
2. the Identity Scale (ID).

In order to increase reliability measures, items were added to each of the scales, and the final developmental scale was given to a sample of high school sophomores. A multiple item analysis was performed:

1. to identify the best items without regard for the subscale, and
2. to set apart barriers and personal limits from the ID and VDMD scales.

The emphases of the analyses were on the Vocational Identity and Occupational Information scales. The Barrier Scale was constructed of items which appeared to be signs of an environmental barrier or had a clear psychological limitation. All reliability coefficients are reported, and an explanation given of the range of statistics and significance points.

Following computation of the K-R 20's, the resulting scheme was given to 824 persons in order to test the instrument's construct reliability. The article then explained all tests, statistics, and conclusions. The article then expounded on the results and made practical applications for their use.

Implications:

Results indicate that the My Vocational Scale (MVS) is more related to type of interest than to age. The test itself was given without regard for age, social class, or employment; it appears to be quite successful in terms of employment interest. It was also found that the Barriers and Occupational Information should be used more in the context of checklists rather than absolutes for interpretation. However, the authors do point out that these scales can be very useful in identification of needs and problems which quite often go unnoticed. In conclusion, as expected, the Identity scale proved to be the most applicable and supportive of Erickson's theory of personality variables as they apply to career decision making.

Researchability:

Certainly a longitudinal study on the reliability and validity of the MVS would be interesting and perhaps useful. Also, as mentioned in the article, an intense study of Erickson's theories, regardless of the difficulty in measuring identity status, is called for.

Wilson, E. L.
THE USE OF PSYCHOLOGICAL TESTS IN DIAGNOSING THE VOCATIONAL POTENTIAL OF VISUALLY HANDICAPPED PERSONS WHO ENTER SUPPORTIVE AND UNSKILLED OCCUPATIONS.
The New Outlook for the Blind, 1971, 68, 78-87.

Purpose:

This article discusses the use of psychological tests to assess the visually impaired person's aptitude for a particular work environment. The author argues for an individual (not test) oriented evaluation procedure.

Content:

Assessment can become distorted as a result of the testing instrument itself. This is compounded by the lack of assessment norms for visually impaired people and the resulting reluctance to use standard assessment methods for the blind and partially sighted client.

Five types of aptitude tests are identified (intellectual abilities, spatial and mechanical abilities, perceptual accuracy, motor abilities, and personality), each of which is considered in an individual's ranking. The author asserts that too often an individual's work related abilities are inappropriately measured due to the assessor's failure to consider all information available on the client.

The strengths and weaknesses of various testing instruments for blind and visually impaired persons are discussed. Research reveals that intelligence tests are of no practical use in predicting success for the gross manual worker. Instead, such things as motivation, a healthy defense system, and good practical judgment prove to be better predictors.

Implications:

Many factors other than an individual's score or assessment ranking should be considered before specific recommendations are made. Workers charged with the responsibility of testing and assessing blind and visually impaired persons can use this analysis to improve their own procedures for evaluation.

Researchability:

More study is needed in the area of adapting and developing items from aptitude tests used by the sighted population which can better reflect the blind and partially sighted client's interests and abilities. A better understanding of how to choose an instrument which will predict success for inspection jobs in industrial settings is also needed.

Oberly, J. I.
USING THE TOWER SYSTEM WITH BLIND CLIENTS.
Paper presented at Use of Work Samples with Blind Clients, Conference, New Orleans, LA, February, 1975. In M. K. Bauman (Ed.), Use of Work Samples With Blind Clients. Philadelphia: Nevil Interagency Referral Service, Inc., 1975, 48-49.

Purpose:

This paper reports on the use of the Tower System with visually impaired clients in a rehabilitation center.

Content:

The Rehabilitation Center in Elkhart, IN, is a multipurpose agency which mainly serves disability groups other than blind individuals. The Center has attempted to use the Tower System for vocational evaluation with visually impaired clients, in spite of the fact that this System had never before been utilized with such clients. All necessary adaptations, such as brailling work samples, were made by the Center. The program continued to be used as written without establishing norms specifically for visually impaired individuals. The Center has found the Tower System to be successful in several areas, one of which is breaking through stereotyped vocational objections of younger clients. It has also been found to have inherent shortcomings, such as the claim that the work samples are too related to job categories. The Center has found that most of the limitations of this System when used with visually impaired clients can be overcome with relatively easy modifications.

Implications:

It must be recognized that evaluation through the Tower System has limitations when applied to visually impaired clients. If the limitations are recognized and dealt with appropriately, the work sample type of evaluation can be an effective tool.

Researchability:

Further study and investigation into the use of the Tower System with visually impaired clients is warranted. Application of the System to a large number of settings should yield informative data with which to evaluate the effectiveness and desirability of using it with visually impaired individuals.

Cunliffe, W.
VOCATIONAL ASSESSMENT OF NON-ACADEMIC BLIND ADOLESCENTS.
The New Beacon, 1976, 3, 1-8.

Purpose:

This article discusses methods and rationale behind particular assessment techniques used as self-help tools rather than as means of limiting access to occupational training.

Content:

Standardized test results should be used as indicators rather than as conclusive evidence. Tests devised for curriculum purposes that relate to the type of work done are of value to the instructor in planning a course for a student. Six curriculum areas are studied in detail:

1. light engineering;
2. woodwork-machine operating-tool recognition;
3. industrial assembly;
4. typing;
5. pre-telephone, and
6. mobility.

Components such as social relationships, industrial experience, career interviewing, parental attitudes, and social initiative are discussed with emphasis on the work/employment environment.

Implications:

The vocational guidance function, based on the wishes, abilities, and opportunities of students, is to provide them with experiences and find work. Knowledge of industry and of the workers in it is of more value than clinical expertise.

Researchability:

Assessment for employment of non-academic, severely handicapped individuals needs to focus on personal and social aspects. More emphasis is needed on individual and social initiative in training for an occupation.

Bogardus, R. D.
WHAT THE COUNSELOR IS LOOKING FOR BY WAY OF REPORTS FROM WORK EVALUATION FACILITIES.
Paper presented at Use of Work Samples with Blind Clients, Conference, New Orleans, LA, February, 1975. In M. K. Bauman (Ed.), Use of Work Samples with Blind Clients. Philadelphia: Nevil Interagency Referral Service, Inc., 1975, 39-41.

Purpose:

The article summarizes for counselors some of the information about the blind client from work evaluation facilities.

Content:

The first evaluation responsibility lies with the counselor. He must determine exactly what he wants and needs to know about his client before he can expect any pertinent information from a work evaluation facility. The three questions that the counselor should ask himself include the following:

1. What do I already know about my client?
2. What don't I know that prevents me and my client from vocational planning?
3. How can I best obtain answers to the unanswered questions?

Thus prepared, the counselor can obtain and effectively interpret information from the work evaluation facility.

The burden to provide adequate information then shifts to the work evaluation facility. Not only must the hard data be reported from psychometric or psychological tests, but more important is the manner in which these results relate to other evaluative findings. Questions concerning the client's relationship to staff, attitudes toward authority, personality style, appropriateness of behavior, social attitudes, personal hygiene, etc. are all an integral part of the information needed. One major area where information is needed is in the assessment of independence. Included here are aspects such as traveling, communication skills, eating habits, and the ability to ask for assistance when needed.

Finally, the issue of what kind of vocational information is most desired by counselors is discussed. Most counselors want information in one of two forms, either:

1. very specific recommendations as to what jobs the client can do effectively, or
2. indications of the types of job a client can perform with a flexibility in final vocational judgement.

Implications:

As counselors gain additional information concerning both personal and occupational skills of a client, the quality of counseling will increase. As the quality of counseling increases with less time expenditure, the client will have more quality time to devote to his eventual occupation.

Researchability:

A determination of exactly which information is most vital to a counselor to best serve a client is the most important research potential of this article.

Yoder, N. M.
WORK EVALUATION THROUGH JOB SAMPLE USAGE.
Paper presented at Use of Work Samples with Blind Clients, Conference, New Orleans, LA, February, 1975. In M. K. Bauman (Ed.), Use of work samples with blind clients. Philadelphia: Nevil Interagency Referral Service, Inc., 1975, 42-44.

Purpose:

This paper proposes the job sample as the best and most effective means of vocationally evaluating persons who are blind or visually impaired.

Content:

Two conditions are necessary to develop a visually impaired individual into an occupationally productive person:

1. The individual must be motivated to become productive and be willing to give of himself to attain this goal.
2. The rehabilitation facility must make a determined effort to give the individual an honest, complete, and valid assessment.

The author defines assessment as consisting of components of communication, activities of daily living, mobility, concept development, and counseling; the component focused on in this paper is that of work evaluation through use of job samples.

Some of the job samples mentioned and used by the author include those from American Greeting Card and from Gyromatic. These job samples cover a broad range of abilities and are applicable in most occupational areas.

The work samples are administered for a fixed period of time and are then evaluated to see how much the individual has accomplished. This amount is then compared to a minimal industrial production level to determine how the individual measures up to industrial standards. The extent to which the visually impaired individual can match industrial standards is considered to be a valid indicator of success on the job, and therefore is a valid assessment technique.

Discussion also concerns job samples designed for woodworking, metalworking, the printing industry, and an "in-house" job sample for a snack bar.

Implications:

With successful performance on a job sample, a visually impaired individual accomplishes at least two things:

1. He is able to convince himself that he is capable of handling the work.
2. He has concrete evidence with which to convince potential employers.

With this new-found combination of self confidence and proven ability, the future looks bright for employment of the visually impaired in many occupational areas.

Researchability:

Further research needs to be conducted in an attempt to develop job samples that are specifically oriented to certain jobs. Currently job samples exist for general areas, but the next step is the development of job samples for specific individual occupations.

Lorenz, J. R.
WORK SAMPLES AND THE GROWING CHALLENGE OF EVALUATION.
Paper Presented at Use of Work Samples with Blind Clients Conference, New Orleans, LA., February, 1975. In M. K. Bauman, (Ed.), Use of Work Samples with Blind Clients, Philadelphia: Nevil Interagency Referral Services, Inc., 1975, 51-63.

Purpose:

This article presents a comprehensive view of work samples including a definition, advantages and disadvantages, and a model to be used when developing a new work sample.

Content:

The extent of the use of work samples in our current society is discussed first. One report states that 50% of all rehabilitation facilities use work samples. With this heavy use, it is appropriate that work samples be consistently defined. The author suggests that we view them on a continuum, with psychological tests at one end and actual job try-outs on the other. The work samples fall somewhere in between these extremes.

Three types of work samples are differentiated:

1. job samples,
2. simulated work samples, and
3. trait samples.

The common elements of these three types include the involvement of some sort of work, either real or simulated. The work is used primarily for an evaluation purpose.

Five major limitations of work samples are listed:

1. While work samples may be an improvement over psychological tests, they are still viewed as tests and are often overly affected by anxiety.
2. They measure what a person can do at a given moment in a contrived situation and may not reflect his performance in a normal situation.
3. They represent a situation controlled by the evaluator with little input from the subject in terms of planning or preparation.
4. They are derived from a reductionistic philosophy and do not measure comprehensive abilities.
5. They represent a deception to workers who come to the workshop with the intentions of actually doing a job.

The major problem with work samples lies in how they have been developed and used, not in the underlying concept or their potential as assessment devices.

A comprehensive method of developing new work samples is given. Also discussed in some detail is the issue of reliability and validity. Standardization is also a concern. Briefly mentioned is the issue of who is competent to administer, score, and interpret the work samples.

In a summary paragraph the author deals with concerns of modifying these work samples so that they can be utilized by the blind. The general rule of thumb given is:

1. remove visual requirements from the work sample which are not inherent in the job itself, and
2. make any other modifications to the work sample which would be feasible on the job itself.

The article concludes with 12 questions concerning work samples and their role in vocational evaluation.

Implications:

With more work samples being developed and modified for use by blind people, it is apparent that vocational evaluation is becoming a more precise science. The better the evaluation that a client receives, the more likely it is that he will be placed in an appropriate job and will be satisfied in that job.

Researchability:

The development of new work samples for many different jobs is an important priority. The modification of existing work samples is an area that also needs attention. Finally, a study to determine the most effective means of using the work sample is needed.

PREEMPLOYMENT

AND

WORK ADJUSTMENT TRAINING

Ethridge, E. G.
AN APPROACH TO CAREER DEVELOPMENT FOR VISUALLY IMPAIRED STUDENTS ON THE ELEMENTARY LEVEL.
Education of the Visually Handicapped, 1978-79, 10, 87-91.

Purpose:

The author argues that it is at the elementary school level where students should receive the framework upon which to build a successful career. She describes the creation of such a program by the Vision Program of the District of Columbia Public Schools.

Content:

Phases of career exploration and career training were integrated into this elementary career awareness program to achieve the goals of giving students early experience with tools, introducing job responsibilities at an early age, and acquainting students with techniques and skills necessary in adapting their work environments to their needs. The program aimed to positively affect the student and his interactions with the instructional staff, the student's parents, and members of the community at large.

An individualized career development curriculum was developed for each visually impaired student. The curriculum contained behavioral objectives that were related to program content. More students were found to have deficits in reading, math, motor coordination, performing work tasks appropriately, and making realistic career choices. In the classroom, the students punched in and out on a regular time clock and were paid in play money for the time recorded as work; a bank account for the "money" earned was established.

The career units included:

food production (planning, planting, and caring for a vegetable garden; reading materials on gardening, measuring rows and plants, harvesting, and preparing the harvest);
food sales (grocery store operation including stocking, cutting, weighing, wrapping, and shopping);
food industry (restaurant work);
construction fundamentals (folding and stapling, use of hand tools, woodshop items as nails, etc.); and
use of leisure time as a career aid (building playhouses, assembling tables, etc.).

Implications:

If the visually impaired child is to develop skills and responsibilities to enable him to compete later with sighted peers at the employment office, career education experiences must be designed within the elementary school curriculum.

Researchability:

Evaluation of the carryover of general skills acquired through this elementary level program and the relationship of these general skills to specific job skills and career success on the competitive job market is needed. No assessment has yet been reported of the program's success in meeting its stated aim of positively affecting the student and his interactions with staff, parents, and the community.

McGreal, T. L., & Wiseman, D.
THE BLIND TEACHER IN THE EDUCATIONAL JOB MARKET.
The New Outlook for the Blind, 1973, 67, 80-83.

Purpose:

This article offers suggestions for the blind applicant for a teaching position.

Content:

The shortage of jobs in the field of education places a double handicap on the blind applicant for a teaching position. In light of this situation, the authors offer some suggestions on how to minimize these drawbacks and maximize the possibility of employment. Suggestions grow out of the experience the authors have gained from working in the educational placement employment business.

Specific suggestions for the blind applicant include:

1. obtaining a personal interview,
2. filing application forms and other pertinent data,
3. preparing for the interview,
4. conducting the interview, and
5. demonstrating independence and mobility at the intitial interview.

The authors stress the need for and the intense benefits gained from publicizing the abilities of blind workers.

Implications:

Although the remarks in this article are directed primarily toward dealing with educational organizations, they have considerable implications for job applicants in a variety of areas. Preparedness, as one of the key factors essential to successful job applications, should be emphasized in any vocational program.

Researchability:

Research investigating the most efficient and successful ways of publicizing capabilities and employability of blind individuals should prove most beneficial. Data supplying common negative attitudes towards hiring the blind would be essential to such research.

Wyant, D. R.
BLINDED VIETNAM ERA VETERANS IN SEARCH OF WORK.
The New Outlook for the Blind, 1975, 69, 410-411.

Purpose:

A high rate of unemployment among blinded Vietnam veterans prompted this investigation into the existing gap between vocational rehabilitation and initial employment.

Content:

Responses to a mail questionnaire submitted to blind and visually impaired Vietnam veterans revealed that few were utilizing available resources to locate jobs. Training was needed in resume preparation, job-seeking procedures, and interview techniques. Such services as the Veterans Administration, the Federal Job Information Center, and state services for the blind were being used by only a very small number of respondents. The authors concluded that this is an area where improvements are directly needed. They identified two steps to be taken:

1. disclosure of the problem in the job search process, and
2. development of a vocational rehabilitation program that would give the blind veteran the same opportunities as his sighted peers to seek and find work.

Implications:

Although the return of blinded veterans of war is no longer as much of a problem as it was when this article was written, many of the needs pointed out undoubtedly continue to exist for civilians who have recently been blinded. In particular, the low use of available resources continues to represent a problem for all concerned.

Furthermore, the ever present threat of reinvolvement of our country in active war necessitates constant preparedness at all levels, including vocational rehabilitation, for a feasible new influx of handicapped war veterans.

Researchability:

Results of this study indicate the need for additional current research in several areas:

1. Training of Veterans Administration rehabilitation counselors and VA social workers in more effective implementation of all phases of the job search.
2. Continued investigation into the best ways to approach the public in awareness programs to overcome myths about blindness and emphasize the capabilities of blind workers.

3. Investigation of the financial demotivation factor in loss of government benefits when blind veterans and non-veterans enter the work force.
4. Surveys of current services and needs which would come to veterans, enabling us to be better prepared than during the post-Vietnam War era.

Wolfe, H. E.
CAREER EDUCATION: A NEW DIMENSION IN EDUCATION FOR LIVING.
The New Outlook for the Blind, 1973, 67, 193-199.

Purpose:

This article discusses the concept of career education and ways in which career education can be applied to visually impaired individuals.

Content:

The author begins with a comprehensive introduction to career education. He states goals and priorities and discusses four major models:

1. the employer based,
2. the home community based,
3. the residential based, and
4. the school based model.

Several general career education programs are outlined.

Career education programs for visually impaired people are discussed; one group of criteria of success used is that the program must produce a marketable skill, self-respect, pride, and the probability of continuing employment. Educators are encouraged to view visually handicapped individuals as just people with their own definite assets and liabilities.

Funding for these programs is available, but very few states have taken advantage of it. In 1972, the National Task Force on Career Education (American Foundation for the Blind--AFB) recognized this problem and recommended that the AFB create a program of advocacy for blind people to:

1. achieve their inclusion in career education programs, and
2. develop necessary methods and materials.

The article concludes with a discussion of one state's attempt to set up a career education program for the visually impaired. Details on this program are not included.

Implications:

With the goal of career education as preparation of a student for a career, it is obvious that this program can be extremely effective. People who are ready to work but have no skills are being replaced by those who are ready and have been trained in a specific occupation so that no training period is needed.

Researchability:

The development of career education for blind individuals is in its early stages and hence useful research can be done in most all areas. These include proper teaching methods, development of applicable materials, and student attitudes toward this program.

Uxer, J. E.
CAREER EDUCATION AND VISUALLY HANDICAPPED PERSONS: SOME ISSUES SURROUNDING THE STATE OF THE ART.
The New Outlook for the Blind, 1973, 67, 200-206.

Purpose:

This article gives a defintion of "career education" and discusses the translation of the term into action, particularly as applied to the visually impaired student.

Content:

Career education is first discussed as a flexible philosophy rather than as a program. Every person should be provided with:

1. information about all career opportunities,
2. a chance to assess his known assets in terms of those opportunities,
3. a chance to develop those assets to qualify at a minimum for entry into the desired occupation, and
4. an opportunity to develop alternatives to these minimum requirements.

Nationally, career education practices for the visually impaired student vary from marginal to extremely sophisticated, but most services have not kept pace with the times. Traditional vocational trades are the major area of emphasis. Conversely, greater exposure has vitalized many agencies, and communication has greatly improved. Continuing problem areas include:

1. inadequate access to occupational and career information materials;
2. lack of recognition of career education as an inherent part of the curriculum in the majority of educational programs for visually handicapped persons;
3. emphasis on immediate educational and programatic goals, rather than on social and economic independence for the individual;
4. stereotyped ideas about blind persons held by sighted persons;
5. extreme reluctance to employ blind persons;
6. assistance and concessions often administered in such a manner as to neutralize incentive;
7. dissipation of agency energies through self-perpetuating activities;
8. overemphasis on specific vocational training at the expense of skills and attitudes necessary to successful competition in the world of work;

9. rapidly increasing numbers of multiply handicapped blind persons who will require special programs during the school years and after;
10. failure to recognize the need for more than one approach to programs for various sectors of the visually handicapped population;
11. professional educators and workers who don't think in terms of continuing lifetime career education; and
12. the difficult-to-modify mind-set developed under the influence of traditional vocational training approaches.

Implications:

Awareness of career education has increased, but needs in the area of career education will include:

1. adequate career education guidelines for program implementation at all educational levels;
2. appropriate career education training programs for educators, rehabilitation counselors, etc.;
3. enlightenment of the sighted population directed toward the goal of acceptance or rejection on the grounds of personal qualities rather than group distinction; and
4. an adequate, thorough, unbiased assessment of individual needs.

Researchability:

Carefully conducted individual and program needs assessment studies are called for before an effective career education program can be developed.

Woal, S. T.
A CAREER EDUCATION PROGRAM FOR VISUALLY HANDICAPPED STUDENTS.
Vocational Guidance Quarterly, 1974, 23(2), 172-173.

Purpose:

This article presents a self- and career awareness program incorporated into an elementary-level education program for visually impaired children.

Content:

A local vocational guidance service and an elementary school for blind children had career and self-exploration books used by sighted children translated into Braille. The books introduced elementary level students to 18 job clusters in the areas of commerce and government, communications and service, and skilled and mechanical trades, with a text and illustrations appropriate to developmental level. The student workbook accompaning the text was designed to afford the student chances to develop a positive self-image and an understanding of peers. The overall program is intended to implement those career development concepts that view career choice as a process beginning in early life and continuing throughout the lifetime; it is closely related to self-concept.

The program is presented to visually impaired children and sighted children as a class unit, giving the two groups a chance to interact. Classroom activity is supplemented by field trips to various business and industrial firms and classroom talks by visually impaired visitors employed at productive jobs.

Implications:

Such a program starts career awareness early in the visually handicapped individual's life. In doing so it should prove beneficial in stimulating students' interest in and awareness of the many occupational roles available today, helping students learn more about their own abilities, increase career aspirations, and heighten self-expectations and concern for others. By sharing such learning experiences with sighted children, such a program helps prepare visually handicapped children for situations they will later encounter in high school and the job world. In addition, sighted children are exposed to intimate contact with handicapped students and given a chance to develop an understanding of their capabilities.

Researchability:

The success and usefulness of such a program could best be judged by long range follow-up studies on participants. Such functions as achievement in vocational training in high school, eventual placement, and career success should all be taken into account. Studies attempting

to ascertain correlations between a better sense of career direction and self-concept in visually impaired children would be most useful. Since visually impaired children are likely to suffer from lower self-image than sighted children without handicaps, career development programs at elementary levels could be more fruitful than now realized.

Abrams, K.
CI-TAB: VIEW FOR THE BLIND.
Education of the Visually Handicapped, 1979, 11(1), 23-27.

Purpose:

This article describes the rationale and procedure followed in development of a comprehensive career education program for blind elementary and secondary pupils by personnel of a regional education service center in El Paso, Texas.

Content:

In 1969, a project was funded known as the Texas VIEW (Vital Information for Education and Work) System. This article concerns CI-TAB (Career Information and Training Activities for the Blind), which is designed to adapt these VIEW materials for use with blind and visually impaired people. CI-TAB has been broken down into eight major categories dealing with living and survival skills in the world of work: job search skills, job behavior, hygiene and grooming, purchasing habits, budgeting, banking, home management, and health care. Halpern's Social Prevocational Information Battery was designed to measure the visually disabled student's skills in these eight areas.

In this program, as students progress through school, their perceptions and needs concerning vocational education change. In K-6, an awareness of the work world leads to career orientation and investigation. In grades 7-8 the student receives more detailed information. In grades 9-10 hands-on and community activities help the student explore his interests and capabilities. In grades 11-12 the focus is on awareness, orientation, investigation, exploration, and is intensified. By the end of high school the student should be capable of responsible career education decisions.

Two national career education curriculum production workshops for educators of blind and visually disabled people focused on developing teaching suggestions for social skills and prevocational information as outlined by CI-TAB. An "Idea Bank for Teachers" was generated. Curriculum materials are also being developed under this project.

Implications:

If the blind or visually impaired person is to compete with sighted peers, it is essential that normal social development experiences be emphasized, especially those which assist the person to develop vocationally.

Researchability:

The CI-TAB system should be researched in conjunction with other projects focusing on the career development of persons with severe visual impairments.

Carroll, L. R., & La Barre, A. H.
A COOPERATIVE VOCATIONAL GUIDANCE COURSE FOR VISUALLY IMPAIRED STUDENT-CLIENTS.
The New Outlook for the Blind, 1974, 68, 163-169.

Purpose:

This article describes how a school for the blind successfully incorporated a comprehensive vocational guidance program into their high school curriculum.

Content:

Since 1969, the Florida School for the Deaf and the Blind has included as part of its routine high school curriculum a vocational guidance course. The program is the result of the joint cooperation and funding of the school and the Florida State Bureau of Blind Services. The course was created when these two agencies recognized the fact that many visually impaired student-clients in the school needed more realistic vocational concepts as well as specific skills necessary for job success (i.e., the making of suitable vocational choices, proper grooming and manners, completing applications, writing resumes, and learning more about vocational possibilities). Also considered important were improved decision-making skills in areas related to success in education, occupation, and leisure activities.

The vocational guidance course is required for all senior students. At the beginning of the course various vocational and aptitude tests are administered, and each student is given the opportunity to indicate vocational areas he would like to explore. Following this initial orientation and evaluation period, the course is divided into three broad areas:

1. good grooming and etiquette,
2. job seeking skills, and
3. vocational exploration to aid in deciding on a particular vocation to pursue.

The first category is covered by instruction in basic areas of eating skills, manners, personal hygiene, and grooming. The second area centers around instruction and practice in filling out job applications, participating in job interviews, and writing cover letters and resumes. The third area assists students in becoming more realistically aware of the world of work as it relates to their visual impairment. Outside speakers from various vocations, field trips, and vocational exploration papers form the core of this area. To augment student exploration, a considerable amount of vocational material is made available to them on talking books, in Braille, and in large print. The school's library has been responsible for procuring additional vocational material. A partial listing of resources for job information is included at the end of the article.

The authors feel that this program has been a successful attempt to overcome student lack of skills and knowledge so necessary in future vocational pursuits.

Implications:

Visually handicapped individuals may need greater preparation to face a competitive job market than do non-handicapped individuals. In order to meet these needs and prepare for competition with non-handicapped job applicants, it may be wise to include a comprehensive vocational guidance program as early as possible in a student high school career. Such programs should consider the unique needs of the visually impaired population. No skill or capability should be taken for granted, and each student should be assessed and evaluated on an individual basis.

Researchability:

There are numerous skill areas which need to be identified in which the visually impaired individual may be hindering job seeking and career potential. Once these areas are identified, they can then be met.

In order to support the effectiveness of programs such as the one described in this article, more studies using a larger and more generalized population are necessary. Longitudinally designed studies would ultimately reveal the long range effectiveness and benefits of such comprehensive programs.

Coker, G. D.
THE DEVELOPMENT OF A VOCATIONAL PROGRAM IN A RESIDENTIAL SCHOOL FOR THE VISUALLY HANDICAPPED.
The New Outlook for the Blind, 1974, 68, 25-28.

Purpose:

This article attempts to show the usefulness of a career education curriculum for youth with visual impairments to prepare the students for the world of work, a curriculum that permits the student to work in different situations while learning how to use leisure time properly.

Content:

The author calls for a balanced curriculum in schools for the visually handicapped which combines education, personal-social, and vocational training with job experiences. He lists three objectives of such a curriculum:

1. to enable blind children to appreciate all kinds of work,
2. to develop the concept of flexibility in the work rate, and
3. to stress the effective use of leisure time.

The author maintains that most schools for the visually impaired should concentrate on the vocational phase of career education to the ultimate purpose of the production of graduates who perform well on the job.

In planning a secondary curriculum with a vocational emphasis, there are three steps to having students work in the community:

1. maintain an on-going survey of available jobs,
2. revise the school schedule to allow time for both off-campus jobs and extra-curricular activities such as band, and
3. plan and supervise the work experience training stations by both the program coordinator and the business involved so that classroom and job correlation may occur.

Vocational education is described as supplementing the traditional curriculum.

Off-campus employment benefits not only the student but also the community by:

1. providing labor to help small businesses which do not need full time employees,
2. relieving businesses of many staff training problems and some expenses associated with hiring a handicapped worker, and
3. acquainting employers and regular employees with the school for the blind, its program, and its students.

Limitations are also noted:

1. Students may miss some extra-curricular activities.
2. The program may prove to be expensive to operate by requiring revisions of school schedules.
3. The program will require time and money from business and industry.

For continual improvement of such a vocational curriculum, student performance must be checked against the stated objectives of the program, and the objectives must be checked against the job. There must be a cooperative effort shown between the school and the local community for success of such a program.

Implications:

A vocationally focused education program can bring many positive results--the production of visually impaired people capable of competing in the sighted world of work; but care needs to be taken that positive benefits outweigh the limitations of the program for the individual student.

Researchability:

The author's observations are all based on personal experience, and empirical verifications are necessary. The concepts presented need to be evaluated so that the elements of an effective vocational education program for visually impaired youth might be made available to educators.

Aston, T.
EMPLOYMENT SERVICES FOR YOUNG BLIND PEOPLE.
The New Beacon, 1979, 63, 225-226.

Purpose:

This article presents the findings of the Royal National Institute for the Blind (RNIB) Working Party. The goal of this working party was to explore employment services for young blind people in the United Kingdom.

Content:

The author reports on the activities of the working party with high school pupils, especially those in their last two years of school. The working party went to most of the residential schools for the blind in the United Kingdom observing, and in some cases, actually helping with vocational counseling. Often schools for the blind have ten or fewer graduates a year, and it is the exception rather than the rule if a school has a full-time vocational counselor or career teacher. Staff at the schools cooperated with the RNIB working party to get good advice to all students.

Points of emphasis include the need to begin a career counseling program at least two years before a student plans to leave school and the importance of giving parents an opportunity to participate in career discussions and vocational planning decisions.

The working party also met with students with moderate to severe visual impairment who were attending ordinary secondary schools. They felt that this group needed the same career guidance that was available in schools for the blind.

Two major concerns of the working party included:

1. the extent to which manual skills are taught in schools for the blind (an increase is needed), and
2. the need to get career information into a more accessible form for visually impaired individuals.

Finally, the importance of guiding individuals into those occupational areas where growth is predicted was discussed. A continuing trend from blue-collar to white-collar work is one that should be a strong consideration in vocational counseling.

Implications:

With the help of the RNIB working party, students are now getting a better and more complete career guidance service. With this better guidance comes better occupational choice and a more satisfied work force.

Researchability:

The development of a more comprehensive plan for teaching manual skills in the schools for the visually handicapped is one priority. A second but still very important need is to research the most effective means of making career literature accessible to the visually impaired student.

Clayton, I. P.
AN EXPANDED PROGRAM IN PREVOCATIONAL EDUCATION AT THE MARYLAND SCHOOL FOR THE BLIND.
Education of the Visually Handicapped, 1979, 3(3), 80-81.

Purpose:

This article presents a prevocational education program which is directed toward a middle-ground approach of providing a good vocational-eduational background as well as broad job entry skills and knowledge.

Content:

The prevocational education program at the Maryland School for the Blind consist of:

1. basic industrial jobs,
2. commercial education,
3. piano tuning, and
4. work-experience programs.

Students are thus provided with skills necessary for entering on-the-job training programs or more specialized vocational training.

The basic industrial laboratory differs from the conventional vocational program in terms of scope and depth. It is aimed at the development of skills common to a number of operations in a working situation. The laboratory prepares the student to enter into a broad rather than specific range of occupations. The industrial laboratory project is original and is designed primarily to meet the vocational needs of the below-average student. The program's major objectives include:

1. To expose the student to a variety of occupational areas in order to determine interests and aptitudes.
2. To develop broad skills related to employment.
3. To develop positive self attitudes and confidence.

Work experience programs provide students with meaningful job opportunities, assessment of work potentials, and sources of possible employment upon completion of school.

Implications:

It is reasonable to assume that such prevocational training programs compliment existing vocational educational programs and enable the visually handicapped student to move confidently into work experience and higher level training programs with a greater degree of efficiency.

Researchability:

In order to compact and strengthen such prevocational programs, research should be directed at finding out what basic skills and knowledges are

common to a large number of industrial occupations. A study of a large variety of specific jobs and tasks should yield a unified core of skills necessary to function in all of them.

The question of at what age or educational level it is best to incorporate such a program is a vital one. Too early may result in loss of effort due to failure to retain knowledge or frustration due to overly difficult tasks and expectations. Too late may result in loss of interest and motivation due to over simplicity. Although this particular study did not mention the range of educational levels at which the program was initiated, future studies should consider the importance of these factors. As with most other programs, final success and effectiveness can only be evaluated after follow-up, longitudinal studies of graduates.

Russell, H., & Butler, M.
THE FIVE COUNTY VOCATIONAL SKILLS TRAINING PROGRAM, 1970-1972.
The New Outlook For The Blind, 1973, 67, 301-308.

Purpose:

This article reports on a three year program in a public school system where a skills specialist experienced in teaching visually handicapped students aided a regular vocational skills teacher.

Content:

Public schools in five counties in California during 1970-1972 offered a new approach to visually handicapped students in three subject areas:

1. industrial arts,
2. home economics, and
3. distributive education.

This program has since been terminated due to lack of funding. However, the project was considered successful in terms of goals, objectives, and cooperation extended to the project staff. Therefore, a review of the project and its historical base is considered justified.

Historically, students graduating from schools for the blind have encountered difficulty in securing employment, and as a result, the schools began building their own workshops. A problem was encountered, however; there was little similarity between the workshops and commercial industrial settings. Another problem encountered in public employment was that blind people were assigned to repetitive or menial tasks.

It has long been believed that it is most beneficial for blind students to be included in a regular classroom setting. Modern innovations involve the blind student in the regular classroom but also make available supplementary teaching services, if necessary.

The answer for visually impaired students in the five-county program resolved into a choice of one of four alternatives:

1. no skills development,
2. a self-contained vocational class,
3. an integrated program without assistance, or
4. an integrated program with assistance.

The integrated program with assistance was the method used in this program.

The trained skills specialist used the itinerant approach of working with the visually handicapped students enrolled in regular prevocational and vocational classes in a public school setting.

Conclusions drawn from this program include:

1. Visually handicapped students can be successfully integrated into regular programs.
2. Regular vocational educators can enroll blind and partially sighted pupils if they receive in-service training.
3. Prospective educators need additional expertise.
4. Alternatives to funding vocational training programs for the visually handicapped are needed.
5. A clearinghouse for career and vocational material is needed.
6. Career education should be encouraged.

Implications:

This program indicates that visually handicapped students can succeed in regular vocational programs with proper assistance. It is also evident that vocational instructors are willing to accept these students into their classes if the students show a genuine interest and the support of the skills specialist.

Researchability:

Due to the success of this program, alternate funding needs to be secured so that it may be re-instated and improved and developed for use in other school systems throughout the country.

Bauman, M. K.
FOUNDATIONS FOR VOCATIONAL CHOICE IN GRADES 1-9.
Education of the Visually Handicapped, 1971, 3, 40-45.

Purpose:

This article points out the need for activities designed to increase the vocational options for children in grades 1-9, and presents examples of some of these activities.

Content:

The author begins by discussing the way in which society has changed and the need that these changes have brought about for an increased vocational choice for children. Actual choice should not be made at this age, but many different choices should be made available for the child to investigate. Through gradual exposure to concepts of job content and concepts of work habits, the student will hopefully be able to make a realistic vocational choice.

Twenty-eight residential schools for blind children responded to a letter requesting information on prevocational activities offered pre-tenth grade.

Some of the more common activities that were undertaken included:

1. field trips;
2. social studies classes;
3. programs in home economics, industrial arts, arts and crafts, and occupation therapy;
4. talks by worker-speakers;
5. career days;
6. occupations courses;
7. psychological evaluations;
8. individual counseling;
9. referral to state rehabilitation agencies, and
10. actual employment (paper routes, summer jobs, etc.).

A specific program being used by the Curriculum Guide for Social Studies of the Tennessee School for the Blind is also reported.

Implications:

The fact that a student is exposed to several career possibilities at an early age allows him some time to sort out the positive and negative aspects of that job before he has to make a choice as to what career path he wants to follow. This will lead to a more informed and happier employee due to the fact that he is working a job that was not the only one available and was not forced on him.

Researchability:

Some of the methods mentioned could be tested to determine the relative effectiveness of each. The further development of the most efficient of these methods would be an appropriate next step. Also of interest would be an objective evaluation of a complete program that is already in place (such as the one used in Tennessee). Emphasis would center on the effectiveness of a complete program versus an approach using several isolated variables.

Bauman, M. K.
GUIDED VOCATIONAL CHOICE.
The New Outlook for the Blind, 1975, 69, 354-360.

Purpose:

The article expresses the need for informed vocational choice for the visually handicapped, with emphasis on the role played both by the visually handicapped individual and the vocational counselor.

Content:

Visually handicapped individuals often are placed in an occupation and remain there for the rest of their working lives. This occurs because the individual has no range of occupational choice. This range of choice is increased as more knowledge is gained about jobs and the individual's interests and abilities. Job information is obtained through career education, while information about the individual is obtained through three major avenues:

1. a cumulative history,
2. vocational and psychological testing, and
3. evaluation through work samples.

The cumulative history includes components such as the educational, family and social, and employment histories. Each of these categories needs to be thoroughly investigated, but any applicable documents should not be taken at face value. Areas of concentration in this search should include individual interest, family patterns of ambitions and attitudes, and place and type of education.

The vocational and psychological tests used should be as applicable to the visually impaired population as is possible. Some of these tests were developed for use with the sighted population, and interpretation should be modified appropriately. Tests frequently used include:

1. the Wechsler Verbal Scales,
2. the Haptic Intelligence Scale,
3. the Stanford Kohs Block Design Test, and
4. the Non-Language Training Test.

Dexterity tests are a major portion of vocational testing and are used to assess orientation in the work space, ability to follow directions, coordination, and speed of movement. Some of the more frequently used dexterity tests include:

1. the Minnesota Rate of Manipulation,
2. the Penn Bi-Manual Work Sample, and
3. the Small Parts Dexterity Test.

Interest inventories such as the Strong Vocational Interest Block, the Kuder Preference Record, and the California Occupational Interest Inventory are also used to assess vocational interest.

The third avenue of information is evaluation through work samples:

1. actual work samples,
2. simulated work samples, and
3. isolated trait work samples.

Work samples are adventageous in that they provide a better mechanism for evaluation of the multiply handicapped, provide built-in motivation, and help reduce test-taking anxiety. Disadvantages include their tendency to subjectivity and lack of adequate standardization.

Implications:

With a new emphasis on assessment of both the individual and potential occupations, a brighter occupational future is seen for the visually handicapped. As the occupational choice range for the visually handicapped individual increases, the chance that he will find a job that is suited to his talents and interests also increases.

Researchability:

The author expresses the need for the development of better measurement instruments and methods, follow-up studies to further determine the value of present instruments, and the development of settings where professionals in this field can get specific training.

Kenmore, J. R.
HELPING BLIND PERSONS TO FIND AND PREPARE FOR EMPLOYMENT.
The New Outlook for the Blind, 1973, 67, 111-115.

Purpose:

This article presents an overview of four kinds of job market surveys as techniques for identifying occupations for persons with visual impairments. The role of the school, the rehabilitation facility, and the placement specialist in employment preparation is also discussed.

Content:

Even though persons with visual disabilities work in thousands of occupations, the unemployment rate of blind persons is high. There is a need, therefore, to open new occupations to this population. The author recommends:

1. general market surveys to identify supply-demand issues for various occupational groups,
2. development of special training programs in occupations known to have a scarcity of workers,
3. study of a particular industry to identify jobs within the industry suitable for persons with visual disabilities, and
4. survey of a particular company to identify jobs within the company suitable for the visually impaired individual.

The author cautions against saturating an occupation with visually impaired applicants/employees, identifying three factors which contributed to the vocational success of blind persons in fields not usually recommended for this group:

1. absolute physical independence, the ability to travel efficiently;
2. social behavior appropriate for work and daily environment; and
3. better than average training in chosen professions.

The need to coordinate schooling with the world of work was discussed. Skills needed in the world of work which should be taught in schools are mobility, daily living skills, habits of organization of materials and time, social graces, and academic subjects. An interface between school and agencies assisting the young person to enter the world of work is needed. The role of the rehabilitation facility/intermediary center in the employment preparation process was discussed, as was the successful use of placement specialists in obtaining jobs for the visually impaired person.

Implications:

As an overview of employment techniques for the visually impaired population, the article helps to provide a perspective on some of

the problems both the visually impaired individual and rehabilitation professional encounter. Kenmore's international view of employment services assists the reader in gaining an understanding of the need to design the system which delivers services to the blind around employment related issues.

Researchability:

As an overview article, many potential research directions are identified, but no single researchable concept is presented.

Klinkhamer, G. E.
THE IMPLICATIONS OF CAREER EDUCATION FOR VISUALLY HANDICAPPED STUDENTS.
The New Outlook for the Blind, 1976, 67, 207-209; 215.

Purpose:

This article summarizes the needs of visually handicapped persons for career education, the value of employment to the individual and to society, and possible approaches to career education.

Content:

Total career education goes far beyond vocational education. Beginning in early life, education and training must prepare visually handicapped children for the world of useful work as well as prepare them for the world of useful living outside of work. Continuing into adult life, the total career education program is individualized to meet the wide spectrum of needs of each visually impaired individual. Without the ability to move about independently, without dressing skills, without socialization skills, and without developing a capability to develop effective use of residual vision, a visually handicapped individual cannot move toward total career preparation.

Realism is the key to education and training of any handicapped individual. Employment has many values in addition to the obvious one of earning a living. It builds self-respect and a heightened self-image, aspects which are of vital importance.

Approaches to total career education should include not only specific training skills but also emphasis on the importance of work attitudes, human relations skills, orientation to the world of work, alternate career choices, and actual job placement. Total career education programs should begin at a very early age and continue through the school years, allowing for flexibility so that youths may leave school and return for further training or retraining.

Implications:

When planning career education programs for the visually handicapped, it is important to remember that vocational training is but one part of such programs. Total career education is multifaceted and should be designed to meet the many unique and individualized needs of the visually handicapped individual. Mutual planning is also necessary to meet the career education needs of the visually impaired population, since no one group can do the job alone.

Researchability:

There is much room for improvement and advancement in the area of career education for visually handicapped persons. While the quality of regular education has advanced rapidly, this area of education has not. Research

and investigation into new teaching and learning techniques can lead to more flexible and effective programs. Utilization of new laboratories, media, and instructional materials should be encouraged by such research. A study of existing programs could reveal strong and weak points to be remembered when planning future programs.

Boulter, E. T.
THE INCREASING NEED FOR BRAILLE FOR VOCATIONAL PURPOSES.
Journal of Visual Impairment and Blindness, 1979, 73, 335-337.

Purpose:

This article relates the revolutionary effect that Braille has had on opening up vocational opportunities for blind persons.

Content:

The invention of Braille opened up a whole new world for the blind individual. Louis Braille's invention has allowed blind men and women to become productive workers at all occupational levels. Many vocations which now exist for the blind would not exist without the aid of Braille; this is especially true of white collar or professional level occupations. Although recent technology has produced new devices that do not rely on Braille for written communications, these alternate methods do not reduce the value of Braille. In a world becoming more complex and information oriented, the need for Braille is increasing. Computerized Braille production and faster printing techniques are enabling a higher volume production of technological and professional journals, textbooks, and other vocational related literature. New Braille production systems are of major assistance to blind people in meeting their educational, vocational, and occupational needs.

Implications:

If blind persons are to be provided with the opportunity for maximum performance in the types of professional vocational careers that now await them, capable Braille instruction must be built into educational systems and rehabilitation centers. In the increasingly complex world of today, the need for quick and accurate access to information is continually growing. New methods of rapid Braille reproduction and printing utilizing computers should eventually assist blind people to secure placement in or promotion to many areas of responsible work which were formerly closed to them.

Researchability:

The demand and need for high volume Braille production is rapidly increasing. Research directed toward finding more rapid and less expensive methods of reproduction is essential. Also, efforts should be made to modify and initiate Braille codes where necessary to achieve higher reading and writing rates and to meet the special needs of the computer.

Dickson, M. B.
JOB SEEKING SKILLS PROGRAM FOR THE BLIND.
Journal of Visual Impairment and Blindness, 1979, 73, 20-25.

Purpose:

This article describes a job seeking skills program which emphasizes active client participation by blind individuals who are taught how to find jobs equal with their capabilities.

Content:

The Oregon Commission for the Blind set up a job seeking skills program at its Portland Vocational Development Center in an attempt to avoid a high rate of "retreading" through the system.

The goal of the program is to teach blind Oregonians the skills necessary to more effectively look for, gain, and maintain competitive employment.

Many blind people actively seek employment, but they have never been taught adequate job seeking skills. They need intensive, individualized training to accomplish securing suitable employment for their qualifications. A unique feature of this program is that it is highly adaptable to individual needs. Clients may need one-on-one instruction, small group discussions, or may only need access to resource information (tapes, etc.). The program is also designed to be flexible depending upon a client's background and experience.

Early in the program some clients take the Career Maturity Inventory, which reveals a person's assumptions about looking for work and the reality of work, shows strengths and weaknesses in various areas, and indicates what individual needs should be addressed in the program.

Several instruments are used to aid the client in determining and matching them with an appropriate job. After this process is completed, then he is led into the actual job seeking process. He does not have to take the first job that comes available.

Before a client can seek employment, he should possess appropriate interview skills. Once he understands the purpose and process of interviews, through the use of audiovisual presentations, the client listens to tapes with interview questions and responds with answers. After practicing, he discusses hard-to-answer questions with the Job Seeking Skills Special st to formulate better responses. As an additional aid, a client video tapes role-playing interview situations which are followed by group discussions and critique sessions. Finally, follow-up assistance is provided during the job search.

Implications:

This program seems to be successful in setting and reaching goals and objectives. The program appears to be adaptable for use with other agencies since minimal training is required, and there is minimum expenditure for job information and resource material used.

Researchability:

The program encountered two problems:

1. Some of the clients were not motivated enought to seek employment.
2. Others had not had effective work oriented role models.

Methods need to be developed to effectively deal with these problems.

Wencil, L.
A PREVOCATIONAL PROGRAM FOR MULTIPLY HANDICAPPED BLIND ADOLESCENTS.
Journal of Visual Impairment and Blindness, 1980, 74, 351; 353-354.

Purpose:

This article briefly describes a practically oriented prevocational program for multiply handicapped blind adolescents.

Content:

Traditionally, teachers of multiply handicapped blind children have used special education materials in a standard classroom atmosphere. St. Joseph's School for the Blind in Jersey City, N.J., decided that a more practical approach, in which students actually performed everyday tasks, might be effective. To test their hypothesis, four students aged 14 to 16 who were mentally retarded and visually impaired were selected. The students were then instructed in the following three phase program:

1. personal care skills,
2. home management skills, and
3. employment skills.

All three phases concentrated on actual doing and performing in real life situations. The employment phase attempted to teach students the skills needed to work in a sheltered workshop or other work activity center. Skills taught in this phase included:

1. placing items in a row,
2. stacking,
3. sorting,
4. inserting,
5. folding, and
6. stapling.

After 10 months of training, the students had accomplished many of the skills the program attempted to teach them. Generally, the areas in which the students made the most progress were speed, attention span, work habits, and accuracy.

The author states that it is the school's philosophy that the skills students acquire in such a program will enable them to function more independently in the future.

Implications:

Being able to learn by actual experience and by playing an active role in their environment should offer many benefits to blind or blind and multiply handicapped individuals. Not only should it enable them to grasp future vocational training at a faster rate, allowing a greater degree of independent functioning, it should also prove to boost confidence and self-esteem.

Researchability:

Extended research is needed in comparing various types of prevocational programs. Studies done with small numbers of subjects and lacking rigorous control cannot be judged conclusive. Correlational analysis of various programs, using large numbers of subjects is necessary. Long range follow-up on ultimate job success should be the ultimate criteria upon which results should be judged.

Lockett, T., & Rudolph, J.
PREVOCATIONAL PROGRAMMING FOR DEAF-BLIND, SEVERELY AND PROFOUNDLY HANDICAPPED.
Viewpoints in Teaching and Learning, 1981, 57(1), 33-42.

Purpose:

This paper describes the concept of a continuum prevocational training for deaf-blind and other severely handicapped individuals.

Content:

One approach that has proven effective in providing prevocational training to deaf-blind and severely handicapped people is the concept of a continuum which emphasizes the individual's movement from the educational setting into an appropriate community-based vocational environment. The concept is a multi-faceted approach to addressing the issue of establishing realistic and relevant prevocational programs. The continuum concept can be broken down into three primary components:

1. the development of intermediate vocational environments to assist the individual in adjusting to the demand of his future vocational setting,
2. the identification of long-range vocational goals on an individual basis, and
3. assistance to educators and parents in focusing on skill areas necessary for success in the community-based work environment.

These components will provide a sound base for the establishment of a prevocational program that will have the capabilities of being meaningful to the variety of functioning levels inclusive in the deaf-blind population. Although this article is addressed particularily to the rubella segment of the deaf-blind population, it applies equally well to the more inclusive blind population.

Implications:

It is obvious that the issue of providing realistic and relevant prevocational programs for blind people is a real one. Comprehensive prevocational programs must be developed to assist blind individuals in bridging the gap between education and post-educational living and working environments.

Researchability:

Objective assessment of various prevocational programs can only be carried out through the use of controlled, long-term follow-up studies. Such studies must encompass a large representative segment of the overall population to be studied, and must extend for a reasonable length of time to accurately assess the success or failure of specific program types.

Cross, K.
PUBLIC SCHOOL TEACHING AS A CAREER FOR THE BLIND: MYTHOLOGY AND METHODOLOGY.
The New Outlook for the Blind, 1972, 66, 43-49.

Purpose:

This article examines issues relevant to blind teachers and teaching candidates in the public school system in an attempt to increase their employability by perfecting their interview skills.

Content:

There are certain facts pertaining to the blind teacher that must be accepted. These include the necessity for admitting in an interview certain classroom difficulties such as:

1. problems in test administration and cheating prevention,
2. less effective use of visual aids, and
3. difficulties in paper correction.

Several suggestions are given to reduce the degree of these difficulties. It must be realized, however, that they cannot be totally eliminated, and a straightforward admission is essential for a good self-presentation during an interview. This is not only an attempt by the blind teacher to rid himself of naive impressions of teaching, but also an attempt to convince the school administrator of his lack of naivete.

In a positive sense, the proper stance that a blind teaching candidate should take when applying for a position is that, in spite of his blindness, he is still the best available candidate for the job.

The importance of meeting chief school officers is emphasized. The article concludes with a discussion of jobs available in education and a look into future employment possibilities for the blind teacher. Although the future looks bright, it still remains the obligation of the applicant to provide first hand valid information to help battle employer prejudices.

Implications:

Blind persons can be effectively employed as teachers but must be open and honest about their difficulties when interviewing. Many jobs are available for the blind person in education, and as the field continues to evolve, more specialized jobs that are even better suited for blind teachers will come available.

Researchability:

A good survey of the field of education and the variety of jobs available to blind persons would be useful. Also, considerable effort should be made to begin exploratory studies into some of the evolving specialized jobs in education such as large-group lecturers and program writers.

Bean, A., Brown, W. F., & Pearson, D.
USE OF COMMUNITY RESOURCES IN REHABILITATION OF BLIND PERSONS.
Journal of Visual Impairment and Blindness, 1980, 74, 196-199.

Purpose:

This article outlines both the advantages and risks of increasing rehabilitation service to visually impaired persons through a community college.

Content:

In a search for alternative funding sources, as well as for opportunities to voluntarily involve the community in the rehabilitation of visually impaired persons, the Rehabilitation Center for the Blind in Daytona Beach, FL turned to the local community college.

Three major areas are outlined in which the community college has supplemented or expanded the services to students of the Center: adult basic education, vocational training, and career awareness and evaluation. Besides the specifics of each program, there are three general goals of the relationship that should be remembered:

1. To move away from the concept that agencies for the blind must supply all the services of their consumers,
2. To achieve community based resources which allow more flexibility in program content and structure.
3. To involve students in such programs to develop a better self-image and less stereotyping, especially if the local resource has a positive community image.

Two cooperative programs are detailed. The Occupational Exploratory Program allows the student to explore various careers, job readiness skills, and vocational values. Results have been consistent with the program's three goals:

1. To provide vocational evaluation in a sighted environment.
2. To allow blind persons an opportunity to work in various community and educational programs.
3. To improve the self-image of many blind students.

Implications:

Increased efficiency and new approaches to service delivery are necessary in a time of budget tightening. The community college can act as a mediator to improve services offered at the Rehabilitation Center. One major problem is financial security: each year questions arise as to whether grants will continue. This article shows how affiliation with the educational community has become a most valuable tool in

increasing the self-confidence and self-image of the visually impaired student.

Researchability:

The success of other community college programs serving the blind could be studied and compared to the program at Daytona Beach for a more comprehensive view. This program could also serve as a model for development of other programs.

Wacker, C. H.
WHERE ARE THEY NOW? TOWARD MORE EFFECTIVE VOCATIONAL GOAL SETTING FOR BLIND ADULTS.
The New Outlook for the Blind, 1976, 70, 19-21.

Purpose:

This article discusses the use of a survey of 300 blind adult clients of a vocational training agency to evaluate the effectiveness of the rehabilitation effort in terms of each client's present vocational status in society.

Content:

Number of participants, dates survey was conducted, description of stages, average age, and survey instrument are described in the article.

Goal setting proved important in job achievement, but no evidence substantiated the realism of goals or any correlation between vocational goals and type of competitive employment in which clients were placed. Unrealistic goal-setting behavior was as prevalent among adventitiously as among congenitally blind people.

The need for goal changing is perhaps more important than goal setting where vocational counseling is concerned, due to the insecurity of students going from the protective atmosphere of the program to the competitive world they are being trained to enter. Counselors need to be aware that there often is a regression to initial goal as programs are nearing completion, even though most clients are trained successfully in adaptive skills.

Implications:

The level of realism shown in the goal setting process can reflect a blind person's ability to function effectively and independently in a competitive work environment.

Researchability:

Further study is needed on the psychological reactions of a client to the whole rehabilitation process and to the introduction of an interim work therapy training phase in the rehabilitation process.

Clayton, I. P.
THE WORK-EXPERIENCE PROGRAM AT THE MARYLAND SCHOOL FOR THE BLIND.
Education of the Visually Handicapped, 1977, 9(3), 91-94.

Purpose:

This paper describes a work-experience program which seeks to prepare students for work in the sighted world by exposing them to a variety of work experiences which:

1. enable the student to select from a wider range of occupations and prepare for jobs actually available in the open market, and
2. develop skills and understanding to equip him for further training and job entry.

Content:

The program attempts to achieve its goal through training or assistance in six areas:

1. basic job skills and attitudes,
2. opportunities to gain a keener sense of responsibility and independence,
3. practical work experience,
4. adult life orientation,
5. counseling for personal, social, and vocational problems, and
6. assistance in obtaining initial employment.

The work experience is provided by employers in the community or on campus. The school provides functional academic instruction, insurance, counseling, work visitation, employer-supervisor conferences, and lunch money. Classroom activities are closely related to real job opportunities. Areas of emphasis include:

1. communications,
2. occupational information,
3. consumer information,
4. social and self-care skills,
5. job skill and work attitudes, and
6. functional academic skills.

The system used for awarding credit is discussed in some detail along with the conditions under which a student is or is not to be paid for work done. The author also explains the procedure by which information on the program is processed and reported.

Implications:

This article presents a starting point for a work program where experience helps develop occupational interests and actual job skills with ability to determine job marketability and on-the-job experience. The need for closely related classroom and work experiences is stressed.

Researchability:

Empirical data on the program's validity is needed to properly assess the program's effects. A follow-up study on the number of persons who participated in the program and were subsequently employed and who retained employment is needed. Additional research is called for on the relative contributions of each of the training factors to the participants' future employability.

The evaluation procedure needs to be reviewed to determine if it adequately reflects what a person learns while engaged in the work experience. Additional studies could cover the effect the program has on the various community and employer attitudes toward visually handicapped persons.

PERSONAL/SOCIAL

INTERACTIVE CAPABILITY TRAINING

Larson, R. W., & Johnson, S. B.
MOBILITY TECHNIQUES FOR BLIND WORKERS IN INDUSTRY.
Journal of Visual Impairment and Blindness, 1981, 75, 219-222.

Purpose:

This article describes the hazards and the mobility techniques that can be used to facilitate safe travel in an industrial setting.

Content:

When blind persons seek competitive employment, they must be able to get around their places of work safely without assistance. If they obtain employment in industrial settings, they must move in an environment that differs from the sidewalks and public buildings which are familiar to them. Furthermore, blind employees can help eliminate negative stereotypes by demonstrating that they can get around without awkwardness.

The authors point out that instruction in developing pertinent mobility skills can enable a blind person to travel with maximum proficiency in an industrial area. They indicate that persons who have had instruction in effective mobility techniques are able to meet the travel exigencies of a new job more quickly and prove to be smooth and confident travelers once they start working.

The article points out key factors necessary for effective mobility in industrial areas. Prerequisites to efficient travel in such areas should be mastered first, including:

1. a good understanding of alignment techniques,
2. ability to judge differences,
3. ability to walk in a straight line, and
4. proficiency in cane and touch techniques.

Once such prerequisites are mastered by the blind worker, travel can be facilitated by the use of various other clues such as physical objects and layouts, auditory perception of objects, olfactory and thermal clues, and movement of air.

The authors stress the element of safety involved in effective mobility techniques and point out that they have yet to encounter an industrial area where a blind worker with average abilities cannot learn to travel as safely and effectively as his sighted counterpart.

Implications:

Since mobility techniques are so closely linked to success on the job and the development of desirable relationships with other workers, instructions in this area should not be neglected. Efforts devoted to teaching blind persons to travel proficiently are of no less importance than those devoted to the mastery of actual work operations. A blind person who is a good traveler and an efficient worker is in a strong position to

become successfully employed, and as he demonstrates his competence, to break down barriers to employment for other blind people.

Researchability:

Mobility techniques open up many areas for new research and technological development. Greater and more sophisticated use of unimpaired senses offer many possibilities. Technology, which is rapidly advancing in this area, is also beginning to provide revolutionary advances in the field of mobility. Use of such devices as sonar and "talking signs" are but a few areas where further research and creative ideas are welcome.

Gillman, A. E., Simon, E. P., & Shinn, E. B.
AN OUTCOME STUDY OF AN INTENSIVE REHABILITATION TRAINING PROGRAM FOR YOUNG ADULTS.
Journal of Visual Impairment and Blindness, 1978, 72, 388-392.

Purpose:

This article presents and statistically evaluates an Intensive Training Program in an attempt to determine which populations would benefit most from the program.

Content:

The Program is designed to work with young adults with multiple handicaps who have been unable to benefit from other rehabilitation programs. Most instruction is of the classroom variety and is conducted on either an individual or small group basis. A wide range of supportive services are available to the trainees. Areas of concentration include orientation and mobility, communication skills, personal management, work evaluation and training, physical fitness, and health education.

The evaluation was conducted on a sample of 44 individuals who participated in the program over a six year period. Information was gathered on an entrance, exit, and follow-up basis. The program's effect was defined in terms of occupational adjustment, skills of daily living, travel, and living arrangements.

In the follow-up phase of the research, 94.6% of the clients said that they had benefitted from the program. More than 60% reported being involved in employment or some activity leading to employment.

Success at follow-up was defined as being employed at any job or enrolled at any school or rehabilitation program. Some of the factors that correlated significantly with success included:

1. Age at entry (clients under 25 were more successful).
2. Activity prior to program entry (previously occupied were more successful).
3. Amount of remaining vision (the greater the vision, the better the chance of success).

Some of the factors that did not correlate significantly with success included socio-economic status, race, sex, education, and type of school attended.

Implications:

A brighter picture now exists for the multiply handicapped youth who successfully completes this program.

Researchability:

The primary need for research concerns those characteristics that did not correlate well with success (i.e., entry age over 25, lack of activity prior to entry into the program, etc.). Once the discriminating factor between success and non-success is determined, the program can be modified to suit particular individual needs.

Simpson, F.
A PRE-VOCATIONAL PERSPECTIVE MAXIMIZING ALL ASPECTS OF ADJUSTMENT.
Journal of Visual Impairment and Blindness, 1980, 74, 39-41.

Purpose:

This article emphasizes the importance of dealing with work adjustment and vocational placement of the multiply handicapped individual as an integrated whole and not as two separate isolated areas.

Content:

Pre-vocational programs for the multiply handicapped person often look only at work adjustment tasks necessary for eventual vocational placement. The equally important areas of social, personal, and community adjustment are often ignored. As a result, multiply handicapped individuals who are well trained and adept at pre-vocational work skills have been known to fail in the actual work situation due to inadequate social, personal and/or communicating skills. If a blind-deaf worker knows how to perform his job well, but does not possess the skills necessary to get back and forth to work, to work effectively as a team member, or to control his behavior and personal mannerisms in an appropriate manner, he will probably not succeed at his job.

For these reasons it is essential that pre-vocational programs be carefully planned and implemented on a broad level, stressing all four important areas of adjustment: work, social, personal, and community. The author implies that most current programs fail to follow such an all encompassing plan.

An exemplary model program at the New York Institute for Multiple Handicapped Blind Students is presented. Six levels of developmental skills are used, and each student is placed in his appropriate level according to capabilities. The levels extend from "very basic" to "highly functioning." Within each level, program planning is individualized for each student and emphasizes four areas of adjustment. Such a program is said to result in simultaneous adjustment in all areas, leading to greater chances of success in employment situations.

Implications:

Though work options for blind and visually impaired individuals may be limited, they do exist and are constantly expanding. However, social, personal, and community adjustment service programs tend to be viewed as separate from employment services. It is necessary to develop programs simultaneously in all areas if the goals of total rehabilitation and placement are to be attained.

Researchability:

The long term success of various types of programs integrating all four areas of adjustment is in need of validation. There are a myriad of possible ways to integrate and implement such programs. Long term success studies will be the only way to evaluate which of these many programs are most effective for which populations. Also, better and more accurate tools to assess individual needs within the four areas are called for. Research studies directed toward development of such assessment tools should prove beneficial.

Lawrence, M.
THE SELF-RELIANCE INSTITUTE: FILLING THE GAP IN WORK EXPERIENCE.
The New Outlook for the Blind, 1973, 67, 221-225.

Purpose:

This article details an intensive five-week residential program designed to force achievement in the visually handicapped by making great demands upon them, and by heightening their self-awareness and self-esteem.

Content:

Lack of work experience, inappropriate social habits, poor physical appearance and mobility problems, and the lack of a competitive attitude toward work have kept many competent blind graduates from obtaining employment. This program tries to remedy this problem by establishing a demanding "bootcamp" atmosphere. The program is jointly sponsored by a number of agencies and has programs to address deficiencies in all the areas mentioned above. The students are expected to perform as well as sighted counterparts in all areas upon completion of the program.

The program's originators theorized that:

1. The visually handicapped person behaves according to the expectations of the people around him.
2. The visually handicapped person is essentially an under-achiever with a poor self-image.
3. The visually handicapped person has the latent ability to become a productive worker.

Students receive intense training in job interview techniques, social skills, and grooming. They compete for four weeks of salaried work in the community. Instructors constantly stress the fact that no student can gain respect or independence if he expects special treatment while functioning in a sighted world.

Students are tested both before and after participation for mobility, daily living skills, physical fitness, and vocational skills. In addition, they take three psychological tests: The Adolescent Emotional Factors Inventory, the Coppersmith Self-Esteem Inventory, and the Adjective Checklist. The author reports that the tests show a tendency for all students to improve, with the initially low scorers showing the greatest improvement.

At the end of the program all employers indicated they were favorably disposed toward the program, and students reflected a great growth in self-esteem and attitude.

Implications:

This study indicates that visually impaired students can gain and maintain employment if properly trained. The above mentioned intensive training may be supplied in a relatively short time.

Researchability:

The author presents several points as limitations of this study:

1. lack of controls on the influence of I.Q., sight, multiple handicaps, and family and economic situations, and
2. lack of follow-up studies on participants.

In addition, no quantifying data were presented. Further classification of procedures and measuring techniques will be necessary before any additional research may be done. The authors also did not indicate the reasons behind the choice of the various tests used or whether or not these tests had been adapted for the visually impaired student. Any future research should start with refinement of the measuring devices. In addition, the article itself states that no matter how successful such a program is, there is a great need to find a way to extend and reinforce such positive changes in the home environment.

Page, D. D.
A SEVEN-POINT METHOD FOR BLIND PERSONS TO IMPROVE EMPLOYMENT RELATIONSHIPS.
Journal of Visual Impairment and Blindness, 1981, 75, 33-34.

Purpose:

This article summarizes important aspects of being successful on a job.

Content:

Many of the problems in employment that are faced by blind individuals are not related to the job itself but rather originate in the attitudes of others. These attitudes may be the biggest obstacle to successful employment.

One of the first steps in achieving success is to develop a positive self-concept. Self-concept is largely determined by the way in which other people react to us. Two steps necessary for the blind person to obtain desired reactions include:

1. the appearance and gradual development of a strong self-concept, and
2. making a co-worker feel at ease.

More specifically, there are seven steps listed to aid the blind person in modification of his behavior in order to obtain a better working relationship:

1. Wear the appropriate attire (color coordination, seasonal choice, and appropriate dress for specific level in the labor hierarchy).
2. Be aware of nonverbal communication (the impression of eye contact, smiling).
3. Develop self-assertiveness (ability to express hurt feelings and the infringement of rights).
4. Be knowledgable about legal rights (specifically awareness of the implications of Sections 503 and 504 of the Rehabilitation Act of 1973).
5. Observe rules and regulations, both written and unwritten (written rules through the organization rulebook and unwritten rules through informal conversations with other employees).
6. Acknowledge and accept personal limitations (acceptance of the fact of blindness).
7. Engage in small talk (to increase rapport with fellow workers and to serve as an information gathering system).

Use of these seven steps will serve to reduce negative attitudes of co-workers as well as increase the self-concept of the blind employee.

Implications:

With the current increase in visual aids and other technological advances, employment of blind individuals is increasing. The major remaining problem is that of dealing with attitudes of society. Use of the seven steps above will be helpful in reducing this barrier to increased employability.

Researchability:

Studies to determine the real effectiveness of these steps would be appropriate. Also, investigation could be carried out to determine if any relevant aspects of the situation had been omitted. Methods for teaching some of the steps such as awareness of non-verbal communication could be investigated to develop an efficient manner of presenting these ideas to a blind individual.

CLIENT

VOCATIONAL/EDUCATION

TRAINING

Lenselink, I. J.
AGRICULTURAL WORK FOR THE BLIND.
Journal of Visual Impairment and Blindness, 1977, 71, 174.

Purpose:

This article points out how the number of jobs for blind people in developing countries may be increased by the teaching of agricultural skills.

Content:

The percentage of blind people in developing countries is much higher than in the west; it is not the exception for one percent of the population of a developing country to be blind. In the past, rehabilitation of blind individuals in such countries was copied from the institutions in the west; "sheltered workshops" can be found in almost every developing country. In the past decade, other educational methods have begun to be devised. If as many blind people as possible are to be reached in such countries, then their education must be short and aimed at resettlement. Since 80 percent of the population of the Third World countries work in agriculture, resettlement of blind people in this area offers far more possibilities than resettlement in industry.

With these thoughts in mind, training programs in agriculture have been set up. The article describes one such successful project set up in Iran by a small Episcopal Church. Training in agricultural skills in the program lasts for six months. Skills such as hand milking, care of chickens, digging and leveling land, planting crops, and working with a donkey are taught. After training, the blind individuals are resettled on commercial farms. Of the 30 trainees over the three years preceeding this article, at least 20 claim to be doing well. It is pointed out that after the six months training every trainee learns something: his mobility is improved, he learns a valuable skill, he becomes more independent, or he learns to work a whole day instead of two hours a day. Only one case out of 30 showed no improvement at all.

Implications:

While sheltered workshops may be adequate in Europe and America where the percentage of blind persons is low, they may not meet the needs of the blind population in all countries. The importance of considering the total situation and tailoring services to the individual's and area's demands cannot be overly stressed. A service which reaches as many blind individuals as possible should be the aim of every rehabilitation project.

Researchability:

In an effort to reach the greatest number of blind people in each area served by rehabilitation services, the efficiency of present and proposed

projects should be assessed. Surveys and research designed to identify each area's most promising field for blind workers would be most beneficial. Follow-up studies looking at employment rates and percentage of blind individuals reached would provide pertinent insight into the efficiency of each project.

The possibility of offering training in agricultural fields could be investigated in certain rural areas and agricultural centers of our own country. Pilot projects with follow-up data collection would reveal the feasibility of continuing such training.

Berger, G.
THE BLIND TEACHER AND THE SOCIALIZED CLASSROOM.
Educational Leadership, 1970, 28, 158-160.

Purpose:

This article explores the role of the blind teacher in relation to the social aspects of the classroom situation.

Content:

The author gives a brief overview of the progress that blind individuals are continuing to make in obtaining teaching positions. Also mentioned is a study of the administrative concerns of hiring blind teachers in which 27 of 32 schools rated their blind teachers as either average or above average.

Three major teaching techniques are discussed by the author. The use of student assistants allows the students to administer their own affairs. The more students involved, the better this technique works. Included in this category are activities such as taking roll, housekeeping chores, and the distribution of equipment and supplies. The cooperative spirit necessary also hastens group socialization.

The second major technique mentioned is the extensive use of audio-visual equipment. In many ways the blind teacher is more productive with this equipment than the sighted teacher. This is due mainly to the fact that the blind teacher has spent more time investigating all of the equipment's possible uses. This also provides an opportunity for student involvement.

The third major technique is the effective use of grouping in a classroom. A class broken down into small groups is more accessible to the blind teacher and also promotes a socialized classroom. Discipline is enforced as a mutual respect and confidence develops between the students and the teacher. The reciprocal feeling of responsibility is prevalent in this type of classroom, and self-discipline becomes an intrinsic motivation.

Implications:

The past success of the blind teacher can only lead to a greater awakening among administrative officials, which in turn will lead to a greater occupational market for the blind teacher.

Researchability:

Continued research into the performance of successful blind teachers to reveal more of their techniques would be very appropriate. Also, the development of additional teaching aids for the blind teacher would be helpful.

Jones, J., & Eckebrecht, L.
CAREERS IN COMPUTER PROGRAMMING FOR BLIND PERSONS.
Computers and People, November 1975, 16-17.

Purpose:

This article shows the feasibility of a visually impaired individual having a career in computer programming.

Content:

The training program presented is the product of a joint effort between the California State Department of Rehabilitation and the Systems Development Corporation. It is an eight month training course in computer programming for visually handicapped people. Candidates for this program are quite select in terms of I.Q. and educational level, although no previous computer experience is necessary. The article specifically centers around two blind programmers who are employed by Great Western Savings and Loan Association.

The article is set up in a question and answer format and includes general questions concerning employee performance. Some of the more specific questions concern reading the program output, coding, and flow charting. The questions are answered by a Systems Development Corporation instructor who is himself blind.

A couple of special devices used to perform duties include a closed circuit TV reader and a magnifying flashlight. Also used is the Optacon, and in some cases, Braille printouts.

The course is free of charge to the student, and most graduates are successfully placed in jobs. The course is succeeding in opening the eyes of the sighted and raising the career hopes and expectations of blind individuals.

Implications:

The article serves to demonstrate point-by-point that a blind individual can be an effective computer programmer. The questions answered and the terminology used are sophisticated enough to convince a prospective employer. The more employers who are convinced, the more jobs will be available in this field.

Researchability:

The major research need is to continue development of special aids. Further refinement of those currently available, both in terms of cost and work efficiency, is of primary importance.

Tomlin, B.
CONSUMER COUNSELOR: A NEW CAREER FOR THE BLIND.
Journal of Visual Impairment and Blindness, 1980, 74, 83.

Purpose:

This article discusses a new career area for blind individuals, consumer counseling.

Content:

The office of the Arkansas Attorney General, in cooperation with the state Office for the Blind and Visually Impaired, created the new position of consumer counselor to be filled by blind college graduates. The position was conceived by a state rehabilitation counselor who was seeking to provide jobs for blind college graduates that were commensurate with their education.

The position involves handling telephone inquiries dealing with consumer concerns spanning a wide range of services provided by both state and private agencies. Basic requirements for the position are a college degree, the ability to type 35 words per minute, and the ability to read 90-100 words per minute in Braille. Other qualities looked for in selection of applicants include good verbal skills, a pleasant speaking voice, and the ability to absorb new information in short periods of time. Very little was needed in the way of special equipment. A Braille Rolodex file containing referral information and a Braille copy of the state telephone directory were provided.

At the time this article was written, the first blind consumer counselor had been working successfully for over six months.

Implications:

Blind persons possessing entry-level skills, such as those required for Consumer Counselor, should be seriously considered for similar positions in both public and private agencies. Such career opportunities can help upgrade the quality of jobs available for and filled by blind college graduates.

Researchability:

What are the skills and traits necessary for this type of job? Identification of such skills and traits may contribute to the development of specific assessment techniques to rapidly and effectively identify those blind individuals who might do well in such careers. There must be a number of other areas, industries, businesses, and agencies which currently have similar positions. Surveys designed to identify such positions may open up a vast new supply of career opportunities for the blind or visually impaired person.

Tremble, J. T., & Campbell, L. F
A DIVERSIFIED COOPERATIVE WORK-EXPERIENCE PROGRAM FOR BLIND AND MULTIPLY HANDICAPPED BLIND STUDENTS.
The New Outlook for the Blind, 1973, 67, 216-219.

Purpose:

This article describes a program designed to coordinate classroom training and on-the-job work experience for blind and multiply handicapped blind students.

Content:

The program has three major components. First, a core area consists of basic courses required for all students, including courses required for work-experience students. These are directly related to the student's special needs and might include anything relevant to helping the student function as independently as possible. Students are also allowed to select electives.

Second, a specialty area (industrial or business education, piano tuning, or home and personal management) allows the student to explore career interests, aptitudes, and abilities. This self-paced program provides training in a major field and a chance to improve work skills found in many jobs.

The third area provides on-going ancillary services such as therapy, medical, and psycho-social.

Each student is offered a work experience on or off campus, in a rehabilitation or community setting. Each is matched to a particular job, depending upon competence in all areas: the work-experience team considers both the demands of the job and the skills necessary to perform it. The job is then explained to the student who must decide whether or not to seek the position. The student is then responsible for many of the aspects of setting up the job interview and work experience. Staff support is provided until the student feels secure in his new environment and the supervisor is satisfied with his performance.

Placement assistance services are coordinated with community-based training programs. At 16 or in the junior year the student is referred to the State Board of Education and Services for the Blind. As the student nears completion of the program, the state counselor and school staff work with the student to find a community placement.

Implications:

It is possible to provide on-the-job training for blind and multiply handicapped persons. This training can also be coordinated with traditional academic curricula to provide the student with a broad range of skills.

Researchability:

Since no control group was provided and no specifics were given on the population or percent of persons employed, evaluation studies are needed to determine the actual effects of the program. Additional information is also needed on the type of instruction used (for example, self-paced, traditional, or workbook). The pre-work placement evaluation process needs further delineation and study.

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Gildea, R. A. J.
GUIDELINES FOR TRAINING BLIND COMPUTER PROGRAMMERS.
The New Outlook for the Blind, 1970, 64, 297-300.

Purpose:

This article makes suggestions for improvements in selection, training, placement, and follow-up employment of blind computer programmers.

Content:

In order to avoid the hazards of vocational misplacement of visually impaired people in the field of computer programming, specific areas of vocational rehabilitation must be considered and improved.

To improve selection, more emphasis should be given to thorough testing and screening to better the chance of success in the total program. Vocational counselors should keep in mind that they are screening clients for employability in intellectual work. Such factors as accuracy with details, imagination, and communication and study skills are important considerations. Of paramount importance is motivation.

To improve training, programs should include periodic reviews of curriculum. The importance of documentation of work done in training is stressed: such documentation will allow the trainee to make a more professional presentation when he goes for his eventual job interview.

To improve placement, each applicant should be trained in interviewing skills as part of his overall programmer training. A key point to remember is that a dimension of communication is missing when inadequate sight on the part of the applicant does not allow him to catch important clues from the interviewer. Such elements put the blind interviewee at a disadvantage, which he may counteract by having some training in interviewing skills.

To improve follow-up, interview data should be elicited by teachers and counselors to provide valuable feedback for improving services. The teacher and counselor should also follow-up blind programmers after they have been employed for awhile to allow them to provide information to help improve the selection, training, and placement processes. It should also be remembered that employed blind programmers can act as a valuable resource for counselors, other blind persons, teachers, and employers.

Implications:

Improvement in selection, training, placement, and follow-ups after employment in all areas of vocational rehabilitation can lead to a decrease in the chances of occupational misplacement or failure. An increase in employer satisfaction and positive public attitudes towards hiring visually impaired people should ultimately result.

Researchability:

Research in the area of preselection assessment to identify particular traits, skills, and aptitudes required for success in specific occupations would simplify and objectify selection procedures. Investigation into the dynamics involved when visually impaired job applicants interview with sighted interviewers could provide blind interviewees with valuable tools to overcome disadvantages. Follow-up post-employment surveys in a wide range of occupations may provide teachers and vocational counselors with creative feedback on the strengths and weaknesses of the curricula and programs. Data from such surveys could also be utilized to identify areas not covered in the classroom or considered by the counselor.

A very helpful approach in changing potential employers' attitudes toward hiring blind people may be to expose them to people who are blind who already are successfully employed.

Such approaches need to be validated as does the best way to reach the greatest number of potential employers.

National Institute of Handicapped Research, U. S. Department of Education. JOB PLACEMENT ACTIVITIES FOR PARTIALLY SIGHTED PERSONS. Falls Church, VA: Indices, Inc., 1980.

Purpose:

This article reports on a three year research study designed (1) to identify, analyze, and design training materials, and (2) to construct effective job placement procedures for selected careers for the partially sighted population.

Content:

As a group, persons with low vision have unique characteristics and needs, and innovative programs should be designed to accomodate these. This research project made strides in this direction by developing items such as training materials for selected careers and constructing special job placement procedures tailored for visually impaired persons. When needed, special sensory aid devices were prescribed to assist in performance of job tasks.

The selected careers studied included microfilm camera operator and various office skills jobs. Although the study was limited to but a few of many jobs possible for visually impaired persons, the project staff believed that the design model can be transferable to a wide range of employment settings.

The overall goals of the project included:

1. Identification of employment opportunities in a career field with a viable job ladder with existing job descriptions.
2. Selection, training, and placement of partially sighted persons whose needs and abilities match those of the chosen career.
3. Identification of adaptive aids and/or job modifications for maximum employment.
4. Development of effective job placement techniques for partially sighted persons.

At the end of the three year study it was concluded that achievement of all such goals is possible.

Implications:

Studies such as the one described above emphasize the unique vocational rehabilitation needs of people with low vision. New programs need to be designed to address such needs.

Researchability:

This study dealt with only a selected group of careers. Studies dealing with a wider range of careers and job settings are needed to increase the external validity of such research. Also, the use of sensory aids (or low vision aids) in assisting with job adaptation is an area where research is just beginning; the area presents many possibilities for future study.

Placeway, P. V.
MASSAGE THERAPY: ANOTHER AVENUE TO EMPLOYMENT FOR THE BLIND.
Journal of Visual Impairment and Blindness, 1978, 72, 396-398.

Purpose:

This article explains the rationale behind the implementation of a vocational training program at the Michigan School for the Blind, a program designed to produce qualified masseurs and masseuses.

Content:

The program, originated in 1972, was developed to guarantee that all high school students at the school would possess an entry level job skill before graduating.

Swedish Massage is the particular technique taught. Students range from 16 to 40 years of age and currently receive full-time training. Most students are novices and the teaching method consists of familiarization with the anatomy and physiology of the human body and concurrent teaching of specific massage techniques for that part of the body. Use of necessary equipment such as ultraviolet and infrared lamps, saunabaths, and hotpacks are also taught.

Social interaction with clients is a very important skill and is included in the training. Teaching occurs in small groups (less than 6), and the informal interactions that occur between pupil and teacher function quite well in developing appropriate social interaction.

The final major emphasis of the program is to teach the student how to run his own small business. Emphasis is upon keeping business records, arranging appointments, and maintaining inventory records. The client is assigned on-the-job work experiences in the community to help develop his business sense.

The structure of the program allows the student to proceed at his own rate; most finish the program within 20 to 24 weeks. It is further emphasized that this is a vocational training program and the goal is an employed person. Studies indicate that the program has succeeded at this goal with 100% placement of graduates in the last two years.

Some of the characteristics found to be desirable in trainees include:

1. ability to communicate verbally,
2. good manual dexterity,
3. physical stamina,
4. excellent personal grooming habits,
5. skills of independent living, and
6. equivalent of a tenth grade education.

If the student is qualified in these areas plus the actual massage itself, job openings have been found waiting upon completion of the program. Finally, details on cost and requirements for entering the program are given.

Implications:

A good training program for a relatively new occupation is now available to visually impaired individuals. Opportunities for employment in massage therapy are constantly increasing. Demand is made both by the constant expansion of public health and recreation clubs and also by hospitals (paraprofessional workers with physical therapists).

Researchability:

Follow-up studies might be appropriate to assess the long-range success of the program as measured by both employee and employer satisfaction. The implementation of this program should be intensely studied by other organizations whose goals are employment of visually impaired individuals.

NATIONAL TRAINING INSTITUTE ON SPECIAL AND TECHNICAL OCCUPATIONS FOR THE BLIND.
The Hadley School for the Blind, Chicago, IL, May, 1971.

Purpose:

This report summarizes a four-day institute on untapped job opportunities for secretaries with visual impairments.

Content:

The National Training Institute on Special and Technical Secretarial Occupations for the Blind met in Chicago in 1971. Forty-six persons highly qualified in their respective fields and residing in all parts of the country attended. Participants included counselors, teachers, employers, and secretaries. The goal of the Institute was to identify, formulate, and develop guidelines and materials helpful in broadening vocational opportunities for visually handicapped persons in the multi-faceted field of specialized secretarial work. Topics covered during the four-day Institute included:

1. general characteristics and skills of successful blind secretaries;
2. placement of visually impaired individuals in secretarial positions;
3. employer and employee viewpoints on the subject; and
4. current and future secretarial job opportunities.

A general consensus was reached that a well-qualified secretary with a visual disability who combines the proper skills with the will to do well can accomplish big goals and be an asset to an employer in all areas of secretarial responsibilities. Highly specialized areas such as legal, insurance, and corporate secretaries were also discussed in relation to the visually impaired employee. The overall compelling theme throughout the conference stressed that the time has come for action in opening job opportunities for competent secretaries with a visual impairment.

Implications:

While there are many jobs open in secretarial fields, vocational rehabilitation of the visually impaired has not taken full advantage of such possibilities. Vocational rehabilitation counselors and visually impaired individuals, as well as employers, should start looking at these possibilities more closely.

Researchability:

Unless the job market greatly opens up to visually impaired individuals, there will be many well-qualified persons for a restricted number of jobs. Greater attention must be given to imagination, ingenuity, and initiative in developing new and innovative approaches to providing guidance, services, vocational training, and placement activities in fields such as secretarial work.

Research and studies in these areas may prove most beneficial. A setting should be established in which new methods for evaluation and new techniques for training can be developed and given initial trials. Also secretarial jobs can be analyzed and usefully defined at different levels in the field.

Nezol, A. J.
A PILOT COURSE TO ASSIST BLIND POTENTIAL TEACHERS.
The New Outlook for the Blind, 1975, 69, 317-319.

Purpose:

This article describes a pilot course for blind students considering a teaching career.

Content:

Illinois State University, in cooperation with the Illinois Division of Vocational Rehabilitation, offered an experimental, three-credit course for blind potential teachers. The goal of enhancing the probability of the students' successful entrance into the teaching profession was pursued through practical experiences, a practical approaches laboratory, mock lessons, a materials preparation workshop, a lecture demonstration, mock interviews, conferences, and exercises in problem solving.

Six students were admitted to the course. The major question to be answered was: Could such a course significantly enhance the probability of teaching success for these individuals and the larger population of blind persons desiring to teach sighted youngsters?

At the end of the course, both students and practicum supervisors suggested changes that they felt should be made in future courses of this type. Suggestions included extending times spent in workshops and allowing more actual experience in classrooms. Also stressed were the needs of the supervisors and course teachers to receive a greater orientation to blindness and to the techniques the students might be expected to acquire. All felt the course was valuable and should be offered again.

Implications:

A blind person may become a good teacher without any instructional attention to his special needs. This is proven by the many competent blind teachers in public and private schools today. But many capable blind students in and out of teacher-training programs could benefit from the instruction presented in this pilot course. The practical barriers dealt with in such courses may be as real as the attitudinal barriers. A course dealing with both barriers can be a real asset to the blind instructor.

Researchability:

It would be unreasonable to apply statistical measures to the data gathered on the small pilot group. Larger, more intensive studies with future courses of this nature need to be made before valid conclusions can be drawn. The ultimate proof of the effectiveness of such courses will lie in long term studies looking at eventual career outcomes of participating students.

Jones, W. C.
PREPARING BLIND PERSONS FOR COMMUNITY WORK EXPERIENCE.
Vocational Evaluation and Adjustment Bulletin, 1976, 9(3), 28-31.

Purpose:

This article reports the success of a community work experience program for the visually impaired.

Content:

In 1974, the Gateway Hope Center in Jacksonville, FL instituted a community work experience program. (The term "work experience" is used instead of "on-the-job evaluation" because the former term suggests that evaluation, adjustment, and training are occurring simultaneously on the job.)

To prepare a blind person, employed at the Gateway Hope Center, for community work experience, he must first go through vocational evaluation which involves two steps:

1. an in-depth phase of assessment, and
2. an in-depth work assessment and adjustment process.

It is essential that an adequate initial or diagnostic evaluation of the individual is accomplished to insure that the client is not harmed and the agency is not embarrassed.

When the blind individual and the agency have decided that the individual is ready for a specific type of work experience, then a suitable place in business or industry must be found. Hopefully, this business or industry will be conducive for evaluation, adjustment, and training to occur simultaneously.

Once the site has been located, an agreement between the agency and participating business or industry should be established. The agreement should include:

1. the goal of the work experience,
2. the length of time the individual will be employed in the program, and
3. the responsibilities of both the agency and the business or industry.

The Gateway Hope Center has been successful in providing a variety of learning opportunities for its blind clients. The Center has also been somewhat successful in gaining community support for its projects. The blind clients who have participated in this project have voiced positive reactions.

Implications:

The community work experience process is a useful tool that gives relatively quick and viable information about an individual's ability to function in a real job. The counselor and blind individual are also provided with information that can be beneficial when attempting to place an individual on a job. Before a blind individual can build a "work personality," there must be an adequate evaluation and individualized training program.

Researchability:

Methods or approaches need to be developed that will more actively involve the community in this program. The community has some hesitations or fears about this program or the people it serves which need to be alleviated.

SDC TRAINS BLIND TO BE PROGRAMMERS.
Computer Decisions, 1977, 9, 73-74.

Purpose:

This article discusses a computer programming training program for blind individuals set up by a private corporation.

Content:

The Systems Development Corporation, Santa Monica, CA, is in its second decade of providing computer programming training for visually handicapped persons in cooperation with the State Department of Rehabilitation. More than 100 alumni of the classes were employed as full-time programmers at the time the article was written.

Systems Development Corporation's regular training programs are designed for sighted personnel, but in 1966, the company's experimental enrollment of a blind student was such a success that they immediately began a programming course for visually impaired persons. The course has been offered continually ever since.

The eight-month course involves 960 classroom hours. Specialized teaching techniques are utilized throughout. In general, the instructions over-verbalize the technical material presented. Where specific computer language formulas are used, they must be stated explicitly, including punctuation. Students record lectures in various ways: some use cassette tape recorders; others take notes in Braille by hand or on typewriters.

Reading documentation requires special equipment which is supplied to the student by the State Department of Rehabilitation for use during the course, and later, on the job. Depending on the type of visual disability, students are supplied with either a closed-circuit television or an Optacon.

Systems Development Corporation has found that the visually handicapped person has some advantages in programming and makes an excellent student and employee. Not only is he usually highly motivated, he tends to concentrate better, is well organized, has good memory, and approaches each task in a step-by-step, logical manner.

Implications:

Vocational training of visually impaired persons doesn't need to rely solely on governmental and other non-profit organizations. Private companies also stand to gain since it has been proven that visually impaired people make as good, or better, employees than their sighted counterparts. Training programs set up by private interests stand to have the two-fold advantages of helping the visually impaired population gain employment and providing an excellent source of potential employees. Such programs also give the visually impaired employee a chance to prove his equality with sighted employees, thereby helping to break down the stereotyped images.

Researchability:

Other corporations specializing in training programs of various types for sighted persons may be interested in setting up special parallel programs for those who are visually impaired. Before doing so, it would be wise to set up experimental or pilot studies to first determine feasibility, adaptation required, and potential for success. Follow-up on graduates of such pilot programs would be essential in determining long range success in the real working world.

Nelson, D. V., & Rush, S. R.
A SURVEY OF TRAINING AND TRAINING RESOURCES ON VISUAL IMPAIRMENT.
Rehabilitation Counseling Bulletin, 1976, 20(2), 152-155.

Purpose:

This article reports results of a survey to assess available training materials related to visual impairment.

Content:

The Continuing Education Program for Rehabilitation: Region 2 staff conducted a survey of three training systems:

1. rehabilitation counselor education training programs,
2. regional rehabilitation continuing education programs, and
3. research and training centers.

The mail survey received data from 112 separate programs and centers.

The rehabilitation counselor education training programs reported that a wide range of topics related to the rehabilitation of persons with visual impairment was usually covered in just a few clock hours. It appears that the majority of this time is spent dealing with the medical aspects of visual impairment. Generally, less time is spent dealing with low vision, orientation and mobility, communications, skills of daily living, recreation, education, vocational training, placement, psychological implications, and public attitudes toward blindness. Almost one-fourth of the respondents devoted no time to any aspect of the rehabilitation of the blind.

Of the 18 research and training centers, 16 indicated that they did not conduct training related to visual disorders and had no related training materials. Of the 13 regional rehabilitation continuing education programs, 10 reported that they conducted no training and had no training materials in the area of visual impairment. Using information gathered from this study, an annotated bibliography on visual impairment has been prepared and published.

Implications:

Survey results indicated that although there are some training materials available, there is no systematic and comprehensive approach to training. This is true of vocational education as well as of other areas of rehabilitation of the blind. It is evident that training opportunities and materials are needed for all areas of rehabilitation.

Researchability:

Further surveys to assess the needs of all rehabilitation programs in the area of visual impairment are essential. Studies aimed at systematizing and coordinating rehabilitation programs should follow.

A TRAINING AND EMPLOYMENT OPPORTUNITY FOR BLIND PERSONS WITH THE SOCIAL SECURITY ADMINISTRATION: TELESERVICE REPRESENTATIVE.
The New Outlook for the Blind, 1974, 68, 19; 24.

Purpose:

The article announces a job opportunity for visually impaired persons.

Content:

The Social Security Administration's efforts to train and employ visually impaired telephone service representatives is described. These representatives must know the current operation of the Social Security Administration and Medicare and be familiar with other community and state health and welfare programs. The representative must be on the telephone eight hours a day, must have the ability to answer questions accurately in an understanding manner, must be able to refer callers to other agencies when the issue is not an agency matter, and must be able to deal with difficult problems while maintaining respect for the caller.

Implications:

The telephone service representative job requires a skilled, personable, and bright individual. Even though the Social Security Administration conducts a training program for the position, it requires intensive counseling and placement evaluation prior to referral since only the best applicants will be hired.

Researchability:

The pre-employment and inservice training programs need evaluation to determine how successfully they prepare and aid visually impaired applicants for the demanding telephone service representative position. The development of vocational evaluation technology is needed to assist rehabilitation counselors and the visually impaired person to determine success potential in a similar occupation.

Day, R. R.
TRAINING BLIND PERSONS AS TAXPAYERS' ASSISTANTS.
Journal of Visual Impairment and Blindness, 1981, 75, 176-177.

Purpose:

This article reports on a pilot project to train blind persons as Taxpayer Service Representatives for the Internal Revenue Service.

Content:

In 1967 the Rehabilitation Center of Arkansas Enterprises for the Blind undertook a pilot project in which qualified blind and visually impaired people were trained to assist taxpayers with their income tax questions. This project was sponsored by a Federal grant from the Vocational Rehabilitation Administration and was endorsed by the IRS and the state office for the blind and visually impaired. One unique characteristic of the program is the opportunity for qualified visually handicapped persons to obtain meaningful employment after completing the training program.

Since 1967 230 blind and visually impaired persons have completed the three to five month course. Prerequisites for the program include:

1. High School diploma,
2. exceptional general skills in math,
3. the ability to type 30 WPM, and
4. the ability to read Braille or print at 60-100 WPM. (Braille users must be able to write with the brailler at 20 WPM and with the slate and stylus at 12 WPM.)

In 1980, 153 visually handicapped persons were employed in all seven IRS regions; 113 of this number trained in this program. Twenty-two of the 45 IRS districts employ three or more blind persons to assist taxpayers.

By 1980, 77% of the graduates of the program were Taxpayer Service Representatives, 20% had advanced to Taxpayer Service Specialists, and one had achieved the status of full-time Manager; 56% of the visually handicapped employed by the IRS are totally blind, and 61% use Braille to perform their duties.

Implications:

This pilot project has been highly successful and indicates that similar programs can be instituted in other states.

Researchability:

Studies are needed in other states to determine how to implement similar programs for qualified blind people.

Knight, A. R.
TRAINING THE BLIND AS WORD PROCESSORS.
Office, March 1980, 91, 116; 124; 126.

Purpose:

This article describes the techniques, problems, and solutions involved in training a blind secretary to become a computer word processor.

Content:

A modified four month training course was implemented to train a blind secretary to operate an IBM Mag Card II machine. Although mastering such a task was originally considered difficult for a blind individual, the student's previous secretarial experience, proficiency at typing, and strong powers of retention enabled her to successfully complete the course and eventually secure a full-time job as a word processor. Although a few modifications in training were necessary (such as typing of instructions), the student was treated as much like sighted students as possible. After her four month training session, the student was instructed in the use of the Optacon to enable her to proof her finished typed printouts.

Although there was initially some reluctance on the part of employers to hire a blind word processor, her persistence, excellent previous work record, and mobility and independence convinced an employer to try her out on a part-time probationary status. At the time this article was written, she had successfully proven her abilities, passed her probationary period, and was employed full-time.

Due to her success, more blind students are now being trained in the same program to become word processors, a job that was once considered unconquerable by blind persons.

Implications:

No job or task should be considered too great or out of the question for blind individuals until after it has been given a chance. As with the word processing task, a blind person's motivation, development of other traits to compensate for a handicap, and constant advances in technology can turn what may seem impossible into the possible. Such accomplishments not only provide new avenues through which blind individuals may seek employment, they help break down stereotyped barriers as well.

Researchability:

Before a job can be objectively classified as appropriate for blind individuals, objective data must first be obtained on a sufficiently large number of blind employees performing the job. Such factors as efficiency, expenses incurred by site modification, and safety must all be considered. If such data proves that such a task is worthwhile for both the blind individual and the employer, then the job is adaptable for blind persons.

EMPLOYMENT

SUPPORT SERVICES

Melcher, J.
THE ALL RUSSIAN SOCIETIES FOR THE DEAF AND BLIND TURN PROFITS TO SERVICES.
Exceptional Children, 1973, 40, 115.

Purpose:

This article reports on the national organizations for blind and deaf citizens of the Soviet Union.

Content:

Each of the 15 Soviet republics has its own society for blind and deaf individuals. Collectively known as The All Russian Society for the Deaf and The All Russian Society for the Blind, the societies meet the physical, emotional, social, and vocational needs of their members. Both societies provide training, jobs, housing, pensions, publications, vocation resorts, and even hospitals for their respective members. The society for the blind processes over 2000 products in the 244 factories it operates. Spare money earned by industries (what we would call profits) is redistributed into education, recreation, and other supportive facilities for all blind and deaf citizens of the state.

Implications:

Such a system of central organization, lack of duplication of services, and redistribution of profits seems to result in an extremely efficient and beneficial service. We may find it helpful to examine more closely and consider such systems as models for our own organizations for handicapped individuals.

Researchability:

Closer examination of the Soviet systems as well as other obviously successful organizations should yield many important implications for improvement of our own systems. Before any system is considered successful, however, actual objective data must be carefully sought, data which does not rely on subjective and possibly biased reports. Furthermore, although an organization may work well in one culture and governmental environment, it may not work well in another. With such factors in mind, objective evaluations of other systems can be made and pertinent strengths can be applied to our own efforts to improve our own organizations for the blind.

Busse, L. L., & McElroy, A. A.
THE BLIND CAN CHART.
Teaching Exceptional Children, 1975, 7, 116-117.

Purpose:

This article describes techniques which enable blind persons to draw two-dimensional graphs on conventional graph paper.

Content:

A special apparatus was developed to enable a blind special education teacher to keep a graph record of her students' performances. The apparatus consisted of inexpensive and easily available materials such as brads, grease pencils, and cellutex. Using the sense of touch only, the blind teacher was able to visually display her pupils' progress on six-cycle graph paper.

Implications:

Such a technique will enable legally blind teachers to train students to chart and will provide the teacher with a method of demonstrating to students, parents, and supervisors a student's progress.

Researchability:

If a blind individual can master the sophisticated technique of six-cycle graphing, other similarly complicated tasks involving two dimensional graphics may be possible. Before such jobs are labeled inappropriate for blind individuals, a thorough analysis of the task and possible techniques to accomplish it should be investigated.

BLIND LEADS THE BLIND IN PAPER CONVERTING OPERATION AT NEW YORK SHELTERED WORKSHOP.
Graphic Arts Monthly, April 1979, 154; 156.

Purpose:

This article reports on the activities of a sheltered workshop, operated by the Jewish Guild for the Blind, which performs paper converting operations.

Content:

A general introduction to the Guild is given. The Guild provides a variety of training, rehabilitation, and social services which are free to the client if he or she cannot afford them.

The Guild operates two facilities in New York, one is a sewing shop and work activity center. The other is a workshop with jobs in assembly, bench work, collating, sewing, machine shop operations, and a new paper converting and printing section. Employment is provided for 236 clients between the two locations.

Much of the article concerns specifics of the paper conversion and printing department which is done under contract to various government agencies.

The article concludes with a discussion of the safety aspects of the machinery. Some have a programmable memory system which reduces potentially dangerous hand manipulations. A great deal of use is made of the electric eye to shut down the machinery whenever a potential danger arises.

Implications:

The Guild employs over 200 visually impaired employees at its two locations, but the jobs outlined in this article could be started anywhere with the right equipment. There seems to be a market for this kind of operation; this lends further encouragement to development of a similar center.

Researchability:

A determination of the efficiency of this operation when compared to a sighted operation of the same type would be useful in making a decision to expand and become a profit-making operation.

Fisher, D. L.
BLIND PROGRAMMERS - THEIR MANAGER'S EXPERIENCE.
The Computer Journal, 1976, 19(2), 189-190.

Purpose:

This article supports decreased dependence on Braille for the blind computer programmer and advocates the use of the Optacon.

Content:

A case discussion of two blind programmers at the Computer Services Division of the Bank of Scotland is given. These two men were efficient but had a major problem: they lacked Braille versions of necessary manuals. This resulted not only in slower work but in difficulties in scheduling and other problems such as extreme paper usage. With this dependence, these men were unable to extend the scope of their work and had limited career prospects.

The men were then introduced to the Optacon, a machine with a sensor which, when passed over typed images, produces a tactile image on a 6x24 matrix of vibrating needles. The blind individual then interprets the tactile image. Advantages of the Optacon as compared to a Braille system include:

1. Braille computer output is no longer required.
2. Ordinary print becomes a common medium to both blind and sighted individuals.
3. Blind people have useful access to all the installation's manuals.
4. Blind people are able to work on conventional job specifications.

Disadvantages include:

1. The inability to leaf quickly through printed output (manuals, etc.).
2. Inability to handle handwriting.
3. Other minor problems such as lined paper and spacing.

The author states that Braille skills are still useful but not of primary importance, and further use of the Optacon is desired.

Implications:

More productivity at less cost to the employer can be the result of the use of the Optacon. With this capability, the blind programmer can extend his interests into many areas not previously accessible.

Researchability:

Refinement of the Optacon is in order. Improvements can be made in the speed of its work and the development of a capacity to read handwriting. Cost efficiency studies are needed to see if the Optacon really is most efficient both in terms of time and cost reduction.

Aston, T.
BLIND WELFARE IN THE SOVIET UNION.
The New Beacon, 1981, 65, 85-88.

Purpose:

This article reports on the state of education, rehabilitation, and employment of blind persons in the Soviet Union.

Content:

There are 290,000 blind people in the Soviet Union; nearly all educational, vocational, cultural, social, and recreational services are provided by associations for the blind.

Originally funded by a government grant, the societies (collectively known as The All-Russian Society for the Blind) are now self-supporting. Like other associations, the Society derives its income from profits of industrial enterprises. Blind persons in the Soviet Union do not pay income taxes and also have special concessions for entitlement to retirement pensions. Schools for blind individuals are administered by the associations of blind people; those for partially sighted individuals are run by the Ministry of Education.

Schools for blind and partially sighted individuals place great emphasis on vocational preparation. Although most blind graduates of these schools go on to work in industry, those with academic ability do have the opportunity to continue their education at universities and institutes.

Representatives of the All-Russian Society claim that every blind person in the Soviet Union who wishes to work can do so. There are large numbers of blind people employed in almost every area of industry and agriculture; professional areas include teachers, computer programmers, lawyers, and university lecturers.

Industrial enterprises for the blind in the Soviet Union are perhaps the most important facilities available for seriously visually handicapped people. Most of the working blind population are employed in these enterprises, and they provide the associations for the blind with their income. Enterprise profits are used to provide kindergartens and schools for blind children, rehabilitation and other centers (including sanitariums and rest homes), and the training of staff.

Implications:

We can only gain by studing the vocational systems and programs of other countries. Although most of our programs are successful and relatively efficient, there is always room for improvement and change. An open-minded sharing of information and facts between various countries and colleagues can only result in increased benefits to the total blind population of the world. As technology advances, making our world smaller and bringing people closer together, such approaches are becoming essential.

Researchability:

Closer examination of other countries' vocational and rehabilitation programs for blind persons should yield many important implications for improvement of our own system. Before any system is considered successful, however, actual objective data must be carefully sought. Furthermore, it must be kept in mind that while one system may work well in one environment, it may not work well in another. Objective evaluation of other systems can be made and pertinent strengths can be applied to our own efforts to improve organizations for all blind citizens.

BLIND WORKERS DON'T HAMPER CONVENTIONAL CUTTING OPERATIONS.
American Printer and Lithographer, 1979, 183, 52 I.

Purpose:

This article points out an area of industry, conventional paper cutting, that holds no obstacles for the blind or visually impaired employee.

Content:

Legally blind workers at the Arkansas Lighthouse for the Blind in Little Rock who operate paper cutters are able to maintain production levels typical of commercial shops. The private, non-profit organization specializes in paper products such as tablets and stenographic workbooks. An important element of the company's manufacturing process is the automated cutter; two of these cutters are operated by blind or visually impaired personnel. Because of the design of this equipment (which offers built-in safety features without hampering high production levels), a new job was opened to visually handicapped employees. Prior to installation of the cutter, the job was limited to sighted employees only.

The article also gives a brief overview of the organization, its products, and its goals.

Implications:

There may be many other jobs in industry which are currently thought of as jobs for sighted employees only that can be converted into jobs for visually handicapped employees. By scrutinizing existing jobs for possible work site or equipment modifications, many new vocational tasks may be opened up to visually handicapped individuals.

Researchability:

Modification of jobs to meet specifications for performance by visually impaired individuals must be followed by long-range production and safety records before such jobs can be said to be fully adaptable to this population.

Goldish, L. H.
THE BRAILLE EMBOSSER TERMINAL: CREATING NEW JOBS FOR THE BLIND.
Rehabilitation Record, 1973, 14(4), 4-6.

Purpose:

This article introduces a new instrument called the Braillemboss and provides support for its use.

Content:

The Braille embosser terminal, developed at Massachusetts Institute of Technology, is basically an adaptation of the printing or TV screen terminal. These terminals are used as teletypewriters, computer terminals, stock tickers, and in several other related jobs.

The Braillemboss is modified in that instead of a TV screen or printer output, it provides a brailled output. This allows for many varied uses of a terminal such as mathematical analysis: in one instance it was used to print out the news for a blind television newscaster. Another area where usage is popular is among blind taxpayer service representatives employed by the Internal Revenue Service. Use of the Braillemboss has made it possible for these representatives to expand their workload and begin working with actual taxpayer files. These representatives are now able to perform virtually all the functions that their sighted co-workers can.

A final function of the Braillemboss is that it can be used to print Braille copies of memos, reference material, journals, and other printed matter.

Implications:

Use of the Braillemboss should make possible the increased employment of blind people in government service, airlines, hotel reservation systems, credit verification activities, utilities, and in many other terminal based positions.

Researchability:

The Braillemboss is a relatively new instrument and could use some long-term development plans to increase its cost efficiency and reliability. This type of aid should initiate the development of many further aids for the visually impaired.

Fonda, G., Thomas, H., & Gore, G. V.
EDUCATIONAL AND VOCATIONAL PLACEMENT, AND LOW-VISION CORRECTIONS IN ALBINISM.
The Sight-Saving Review, Spring 1971, 29-36.

Purpose:

This article relates the use of visual aids to the educational and vocational needs of patients afflicted with albinism.

Content:

The incidence of albinism in the United States is 1:10,000, or an approximate total of 20,000. This represents about five percent of hereditary ocular defects causing legal blindness. In a study of 253 albino patients, it was found that vision is best improved by prescribing conventional lenses. Telescopic spectacles or contact lenses were found to be of no definite value. Since corrective lenses should enable most albinos to read print, the teaching of Braille to such individuals is inappropriate unless a complicating diagnosis is present.

Another study, made by an educational guidance counselor, concerned the educational placement and subsequent employment of albino individuals.

Data was collected from approximately 50 albino individuals living in and around the state of New Jersey. It was concluded that albinos can seek out and successfully hold employment in a wide variety of settings. There was no evidence of any particular job classification to which albinos were limited.

Implications:

Stereotyping may often result in placement of the albino client in a more handicapping classification than warranted. With proper visual correction using conventional lenses, the albino client should be able to attend regular classes in school and seek employment in a wide variety of occupations.

Researchability:

Although studies such as the two mentioned in this paper are valuable ways of securing valid and informative data, care should be taken in generalizing results to overall populations. Only after studies such as these have been replicated on larger and more wide-spread populations can findings be generated.

Ashland, C. A.
EMPLOYING BLIND PERSONS IN WORD PROCESSING CENTERS.
Journal of Visual Impairment and Blindness, 1979, 73, 293.

Purpose:

This article presents an argument for the employment of blind individuals in word processing centers.

Content:

The author, who is herself a blind word processing operator, begins by dispelling the idea that machinery used in this occupation has gotten too complicated for the blind individual to use. In fact, some of the machinery actually makes it easier for the blind individual to do tasks that were difficult or impossible before.

One specific aid that she has found very helpful is the Optacon. She mentions several other machines that she has used successfully on her job.

Problems encountered on the job basically fall into two categories. First of all, the blind operator must be more thoroughly trained than the average operator. This is a problem because it entails more time and money for management. A second problem is that not many sighted workers have worked with a blind persons before, and interpersonal barriers must be broken down.

Some of the tasks performed in a word processing center include daily correspondence, preparation of contracts, drafting, revision of long complicated documents, and manipulation of tables (probably the most difficult aspect of the job.) Generally the blind operator can perform the same task as the sighted operator.

The major problem still remaining for the blind operator is that of proof reading. This, however, is becoming less of a tedious task with the continued development of new technology. The article concludes with the author encouraging other blind individuals to give word processing a chance.

Implications:

As technology increases and jobs in a word processing center become more accessible to blind individuals, the number of blind word processing operators should increase as well. This is an occupation that has been proven to be workable by blind individuals through training and a desire to achieve.

Researchability:

Continued research into the development of new technology to further make these machines accessible to blind individuals is of utmost importance.

Another helpful area would be work on the development of an efficient yet thorough training program to help reduce the cost and time investment required by management.

Aston, T.
EMPLOYMENT OPPORTUNITIES FOR BLIND PEOPLE IN INDUSTRIAL, COMMERCIAL, AND PROFESSIONAL FIELDS.
New Beacon, 1979, 63, 284-87.

Purpose:

The article reviews the range of employment opportunities and prospects opened in recent years to blind persons in Great Britain.

Contents:

Statistical data provided by recent surveys in Great Britain indicated that there has been a shift in emphasis from the blue-collar to white-collar occupations. White-collar fields showing the greatest increase in the number of blind persons employed are social work, teaching, physiotherapy, and data processing. Job prospects for blind people in industry during the next decade will probably continue to decline. The authors therefore stress the importance of taking full advantage of new technological developments that are likely to help blind people gain employment. There could, for example, be new industrial processes which might provide suitable jobs, or it might be possible to develop new aids which could be used in employment to overcome problems created by a visual handicap.

As the number of machine operating and inspection jobs in industry diminishes, employment opportunities in the commercial sector, particularly dealing with telephoning and typing, become increasingly important. Several new technical aids on the horizon could be of substantial benefit to blind people going into clerical jobs. Two such aids are the Optacon tactile reading device and the Kurzweil reading machine. Technical advances such as these should help open up many new job possibilities for blind individuals.

Implications:

The advancement of technology will not only act to phase out many jobs now done by blind employees, it will also serve to open up many new job possibilities.

We cannot be passive about the long-term employment prospects of blind people. Comprehensive and coordinated efforts should be initiated now so that every advantage can be utilized to ensure that as many blind people as possible find jobs compatible with their abilities.

Researchability:

Research surveys, such as this one conducted in Great Britain, could be instituted in this country. Such research should provide data indicating current occupational trends for the blind as well as information necessary for more extensive vocational research.

Aston, T.
EMPLOYMENT SERVICES FOR BLIND ADULTS.
The New Beacon, 1979, 63, 253-254.

Purpose:

This article expresses the views of the Royal National Institute for the Blind (RNIB) Working Party on employment services that are provided for blind adults in the United Kingdom.

Content:

The author introduces several subgroups of his organization and describes their interaction with each other. The RNIB states that it is interested not only in training young adults but also in helping blind people to obtain commercial and professional employment. Certain members of this organization are responsible for interviewing blind people who are looking for jobs, for handling rehabilitation and training applications, and for visiting employers.

The RNIB is continually expanding from its central office in London to many locations throughout the United Kingdom. One specific employment discovery is that many registered blind people have been successfully employed as employment officers by the RNIB. It is suggested that recruitment procedures be altered in order to employ more blind workers in this area.

The article summarizes some of the views held by members of the RNIB in relation to exactly what role they should play in the provision of employment services. Some concern was expressed over the provision of employment services to additionally handicapped blind people, in particular, services to deaf-blind people. Experience is a necessary factor here, and the RNIB staff does not possess much experience in this area.

Implications:

As the RNIB continues to develop its ability to provide employment services to blind people both by better training and by an increased staff, benefits will gradually be seen. These benefits will translate directly into the increased employment of blind people in commercial and professional occupations.

Researchability:

The author feels that the emphasis on research should be in developing the range of employment opportunities available to blind people in the commercial and clerical fields, and in encouraging much more vocational research and development by the RNIB.

Aston, T.
EMPLOYMENT SERVICES FOR BLIND PEOPLE IN THE UNITED KINGDOM.
The New Beacon, 1978, 62, 1-4.

Purpose:

In this article the author describes the range of employment services and employment possibilities available in the United Kingdom.

Content:

In the United Kingdom, responsibility for the provision of employment services for blind people is shared between voluntary and statutory agencies. The Employment Service Agency (ESA), an executive arm of the government, has responsibility for securing employment and offering other services to blind adults. The Royal National Institute for the Blind (RNIB), a voluntary agency, assists suitably qualified, seriously visually handicapped people to obtain employment in commercial, professional, and administrative occupations. There is a pattern of complementary and coordinated services that has developed over a long period, a pattern flexible enough to change in the future to meet new demands.

The ESA undertakes the greater share of employment placement work. In comparison, the team of specialist officers employed by the RNIB is small and most are also visually impaired. Unlike officers employed by the ESA, most of the RNIB's officers tend to specialize.

The majority of blind people in the United Kingdom are employed in industry at semi-skilled or unskilled levels. Among the various specialized vocations are piano tuning and physiotherapy.

The number of blind persons entering professions, and the range of such professions, has steadily increased during recent years. Professions occupied by blind persons include teachers, lawyers, and social workers. Computer programming was a relatively new occupation at the time this article was written.

These two separate and autonomous agencies do not operate in isolation. Very close cooperation exists at field level between officers of the two agencies and between senior civil servants responsible for the government service and the senior staff at the RNIB.

Implications:

Because patterns of organization are functions of the agencies providing services, and because employment opportunities available to blind persons are directly influenced by economical and political characteristics, one country's system cannot be used as a sole model for the provision of similar facilities in other parts of the world. Service providers in the U.S. can, however, learn from other systems by identifying areas compatible with our own situation.

Researchability:

Other systems and organizations involved in vocational rehabilitation in other parts of the world should be carefully scrutinized to see if they offer anything we may learn from. Such a sharing of information and projects may benefit both sides, but careful, long-term research is still necessary to validate the effectiveness of any program.

Ashcroft, S. C., & Bourgeois, M. (Eds.).
EXPERIENCES WITH ELINFA'S DIGICASSETTE IN RESEARCH, EDUCATIONAL, AND EMPLOYMENT SETTINGS.
Journal of Visual Impairment and Blindness, 1981, 75, 226-229.

Purpose:

This article reports on an evaluation and research program for the Portable Brailler Recorder (Digicassette).

Content:

Thirteen Digicassettes were placed in educational settings in Columbus, OH, and Nashville, TN, to serve elementary, secondary, and college-level blind students who read and write Braille. A program of formative and summative evaluation, designed for continuous assessment and final appraisal of the Digicassette, included data collected from Digicassette users, teachers, project personnel, and others.

After the conclusion of the project, the principle investigators held a telephone conference with six administrators who work with people who are blind in the fields of employment, education, and technology to share positive and negative experiences encountered.

The project results revealed overall reading rates using the Digicassette at 50 percent less than reading rates with conventional Braille materials. Writing rates using the Digicassette were identical to rates using the Perkin's Brailler for all students. The low reading rate was thought to be due to lack of experience with the machine.

Questionnaires distributed at the end of the study to high school and college subjects revealed that while college students like the Digicassette because of its time-saving features for note taking, they were reluctant to continue using it because of its high cost.

A frequent problem mentioned by other members of the conference was the long time necessary for servicing the machines.

In summary, the researchers concluded that longer exposure and training will be necessary to bring the efficiency of the Digicassette up to and above normal techniques. The other participants of the telephone conference seemed to agree on the desirability but limited usefulness of such equipment at this time in the fields of education and employment. All agreed that further development, more experience, and more research and evaluation would be needed because of the concerns about the equipment's usefullness, the availability of materials, and the need for improved service from suppliers.

Implications:

Although Portable Braille Recorders may eventually increase the writing and reading efficiency of blind individuals in employment and educational settings, a cautious optimism should be maintained about the future of such applications of technology to the problems of people who are blind.

Researchability:

More research and evaluation of Portable Braille Recorders is in order. Such research should include larger and more varied groups. In particular, it should allow for longer training with and exposure to the machines before accurate conclusions can be ventured. Ethical issues should be scrutinized when imposing such research upon younger groups such as elementary school students, since there is a possibility that use of such machines may be slowing down Braille reading rates. Ideally, further research in this area should be done with older subjects who have passed their formative reading stages.

Gill, J. M., & Silver, J. H.
A FIELD STUDY ON THE USE OF CLOSED-CIRCUIT TELEVISION AS AN AID TO EMPLOYMENT.
The New Beacon, 1979, 63, 85-92.

Purpose:

This article describes the results of a study concerning the efficiency and effectiveness of closed-circuit television as an employment aid.

Content:

The author gives a background of visual aids and some of the ways that they have been distributed and used in the past. Closed-circuit television aids (CCTV) have come into prominence during the 1970's.

Some of the advantages of CCTV that other optical aids don't offer include:

1. greater magnification,
2. allowance of a relatively normal reading position,
3. variable magnification with zoom lens,
4. enhanced contrast, and
5. reversed polarity.

Disadvantages include:

1. relocation difficulties,
2. frequent skilled maintenance, and
3. expense.

In the selection procedure of the study, 36 visually impaired individuals were allowed to use the CCTV system in their employment; they were then questioned as to the effectiveness of the system. Many responses were given to such items as the image preferred, use of adaptations of the machine, and average time used per day. Problems listed included lack of mobility, lack of privacy, and some difficulty in keeping the machine properly maintained and in working order. However, despite these and other problems, 22 subjects reported that it had kept them in employment or enhanced their promotion prospects. Follow-up is strongly recommended on both technical and clinical grounds. The authors conclude with a list of recommendations for future use.

Implications:

Employment opportunities are not only enhanced by use of the CCTV system, but in many situations, initial employment is made possible. This particular aid can only increase the employability of the visually impaired individual.

Researchability:

Important research needs include reduction in both size and cost of the machinery and refinement to permit more constant operation without mechanical failures. A special program might be developed to teach the visually impaired individual how to operate the machine and some of the minor points of its maintenance.

Kruger, I. J.
HOMEBOUND EMPLOYMENT FOR THE BLIND AND VISUALLY HANDICAPPED IN NEW JERSEY.
The New Outlook for the Blind, 1972, 66, 345-348.

Purpose:

This article reports on a program designed to provide employment for the homebound visually handicapped person.

Content:

The New Jersey Commission for the Blind and Visually Impaired implemented a program to meet the needs of their homebound clients. At the time the article was written, the program had been in existence for more than 15 years and was still considered relatively successful and productive. The goal of the program, known as Home Industries, is to bring rehabilitation benefits to the large number of clients who are incapable of working away from home.

Two subdivisions exist under the Home Industries Program:

1. The Craftshop Program is mainly therapeutic in nature and is designed to help the blind client meet the problem of having something to do to occupy his time.
2. The Wholesale Products Program consists of trained, highly skilled individuals who are production oriented and who mass-produce various products in their homes for resale, at a profit, on the commercial market.

Products of the Wholesale Products Program include children's garments, refinished furniture, and re-caned chairs. Products are all of high quality, and by buying raw materials in quantity, the program is able to sell at competitive prices while making good profits.

The author stresses that this program, while successful in meeting its goals, is nevertheless a high cost program requiring substantial financial support in order to underwrite the large expenditures necessary to continue to provide the service. The logistics involved in raw material and finished products distribution and pick-up, inspection and packaging, and warehousing all contribute to the high cost involved.

Implications:

While such a program can be highly successful in meeting the needs of the homebound clients, those interested in formulating ideas for setting up such a program must be aware of the inherent problems and high costs required for operation. A superficial study and an attempt to duplicate a program such as this without a full recognition of the need for long range fiscal insurance can only lead to disaster.

Researchability:

Studies investigating the number of homebound blind or visually impaired individuals and their abilities may open up new possibilities for homebound employment. Many state home work laws impose restraints which prohibit many blind individuals from employment. A closer look at local state laws and public policies may provide insight into changes necessary to allow more blind and visually impaired individuals to engage in such activities.

Winer, M.
JOB OPPORTUNITIES FOR THE VISUALLY IMPAIRED--A SELF HELP CONCEPT.
Journal of Visual Impairment and Blindness, 1980, 74, 232-237.

Purpose:

This article relates how the natural growth and development of a self help service organization led to work opportunities for its participants, some of whom became, at one and the same time, service consumers and service providers. Modified techniques and special equipment used by blind staff and volunteers are also discussed in detail.

Content:

VISION Foundation, a self-help program of and for those who are newly blind or have progressive eye disease, provides work opportunities for both paid and volunteer visually impaired persons. The programs focus on self-help groups, a buddy phone system, and a state-wide information and referral service. Each year new services are initiated: for example, a quarterly newsletter, in large print and on tape; and a biweekly state-wide telephone information tape listing job and recreational opportunities, cultural events, new benefits, etc. VISION has also published a large print (and cassette) Inventory List of resources such as cookbooks, brochures, catalogs, and circulars.

Implications:

Although VISION did not start out as an agency with employment of blind people as its purpose, it has become an environment in which they can volunteer, develop skills, and work to help others while at the same time helping themselves.

Researchability:

The VISION organization itself does a great deal of research on the needs of blind or visually impaired people which could be quite helpful to a rehabilitation counselor or potential employer.

Huber, D. J.
LEARN TO EARN: A SCHOOL WORK-EXPERIENCE PROGRAM.
The New Outlook for the Blind, 1973, 67, 219-221.

Purpose:

This article reports on a program designed to provide residential school students part-time work experience in a sheltered workshop.

Content:

The work-experience program is a joint project of the Pittsburgh branch of the Pennsylvania Association for the Blind and the Western Pennsylvania School for Blind Children. To enter, students must be candidates for sheltered workshop employment or capable of entering the labor market upon graduation. Students work for three hours a day, three days a week, for a period of six weeks. The school is responsible for orienting students to exterior environment, the city association for the blind for interior orientation. At the end of the work period a written evaluation of progress is made by the program coordinator, shop supervisor, and case work staff. The evaluation covers the areas of performance, strengths, weaknesses, prognosis of potential, and recommendations.

After program evaluations, changes being considered include work application and interview experience for students, two full days employment per week to better simulate a realistic work setting, and incorporation of the program into the school curriculum with appropriate graduation credits.

Implications:

The author proposes this program as a means to provide students who are blind with work experience that will better qualify them to work in either sheltered workshops or the general labor market.

Researchability:

The author gives no data to back up his assertions; therefore this study may need to be replicated to determine exactly what the variables are. He also used the same program for persons who would be working in sheltered workshops and those who would enter the general labor market, but there is no reason to believe these groups or skills needed are the same. Further research is needed to clarify these points and assess the value of the present program and the program after amendment by proposed changes.

Brazelton, F. A.
THE LOW VISION CENTER, LOS ANGELES COLLEGE OF OPTOMETRY.
American Journal of Optometry and Archives of American Academy of Optometry, 1970, 47(6), 487-488.

Purpose:

This article reports on a low vision clinic which offers both 1) services to the visually handicapped, and 2) undergraduate and post-graduate training in low vision care.

Content:

Over 590 patients were seen in the Los Angeles College of Optometry's Low Vision Clinic during its first year of operation. The clinic received referrals from a large variety of different sources, including local ophthalmologists and optometrists, the State Department of Vocational Rehabilitation, schools, social services, and the Veteran's Administration. All patients were initially screened, and then follow-up care was provided if indicated.

A doctor-patient ratio of 1:2 was maintained. An initial study of the 55 referrals from the California Department of Vocational Rehabilitation made during the first year revealed 49 had been successful in obtaining employment or continuing their education due to vision aids prescribed by the Center.

Implications:

Low vision clinics affiliated with schools of optometry or medicine may be an effective and economical way of reaching a larger number of visually handicapped people. Low vision aids provided by such clinics could increase the employability rate of visually handicapped populations not ordinarily reached by other programs.

Researchability:

Although a wide range of services is to be provided by the Center, there is no evidence of duplication of service by other agencies or institutions. Quality of care is also an essential variable which needs to be considered in evaluation of such a program. Longitudinal, follow-up studies on patients seen in the Center would be beneficial in assessing the effectiveness of the program.

Oehler-Giarratana, J.
MEETING THE PSYCHOSOCIAL AND REHABILITATIVE NEEDS OF THE VISUALLY IMPAIRED DIABETIC.
Journal of Blindness and Visual Impairment, 1978, 72, 358-361.

Purpose:

This article discusses the psychosocial and visual problems of proliferating diabetic retinopathy in terms of four stages.

Content:

The first stage in dealing with proliferating diabetic retinopathy is discovery of the diagnosis. During this time repression and denial of the diagnostic implications and isolation of feelings from oneself are usually strong. There is a need for the individual and his family to have an elementary discussion of the anatomy and physiology of the eye and basic medical information about the diagnosis. The individual's vision, at this state, is 20/20 - 20/30.

The second stage in dealing with this disease is developing an awareness of the diagnosis. At this point the individual has visual acuity of 20/40 - 20/100 in the better eye and accompanying fluctuations in vision. The fluctuations are due to leakage of blood into the vitreous cavity. Some persons have such dramatic fluctuations in vision that some days they can drive a car and some days they cannot. This causes an indefinite psychosocial state where the individual has difficulty making daily decisions as well as plans for the future. Fluctuating vision causes the individual's vision to diminish gradually. During this time difficulties at work and home may be encountered, and the need for low vision aids and initial vocational rehabilitation emerge. A rehabilitation counselor would be helpful in adaptation of work stations to accomodate the loss of vision. Another frustration encountered here is the restriction of physical activity. However, the needed vocational/rehabilitation counseling is not usually available to an individual because he is not yet legally blind.

The third stage is realization of disability. Visual acuity at this state is 20/200 - light perception only. During this time most individuals go through confrontation, depression, anger, and grief. They also come to an awareness of their loss of independence.

The final stage is stabilization of vision. The stability may be at some level of residual vision or at total blindness. Professional assistance is required at this point. The individual may require the services of a state agency for the blind when his acuity reaches 20/40 in the better eye.

The author feels that preventative rehabilitation is the solution to the problem of insufficient rehabilitation. The goal is to work on a continuous basis with the individual to prevent a loss of meaning to life through the inability to perform valued responsibilities.

Major types of preventative rehabilitation are counseling centering on the anatomy and physiology of the eye and basic diagnostic information, individual and group therapy by professionals, vocational guidance and basic rehabilitation information in such areas as reading and mobility. The basic advantages to employing preventative rehabilitation are:

1. Persons will receive psychological and vocational rehabilitation earlier than is now normal.
2. They will view the agency as a resource since they can turn to it in need.
3. They will be more accepting of state assistance if it does not carry the label "Legally Blind."
4. Physicans will be able to refer diabetics and other patients as they feel necessary.
5. A greater number of visually impaired will retain jobs and home responsibilities and thus not become totally dependent.

Implications:

This article implies that "blindness" needs to be redefined so as to include in its target service group individuals with proliferating diabetic retinopathy. The need for earlier assistance from agencies and professionals for this disability group is also indicated.

Researchability:

Methods of implementing a program to service this disability group at an earlier date in the progression of the disease needs to be studied.

NOT BLIND TO BLIND NEEDS.
Data Management, 1978, 16(32), 32.

Purpose:

This article reports on a resource center developed for visually impaired data processors.

Content:

The Hadley School Resource Center for Visually Impaired Data Processors, located at Hadley School for the Blind, Winnetka, IL, was established in conjunction with Visually Impaired Data Processors International (VIDPI). The Resource Center offers assistance to working blind programmers and to high school and college students wishing to enter data processing. It also functions as an information exchange for employers and potential employers. Services which the Center can provide include listings of up-to-date data processing texts and manuals available in Braille and names of blind programmers willing to share their experiences.

The professional organization, VIDPI, sponsors a yearly conference which serves as an update for blind programmers on equipment, industry information, and help in techniques.

Implications:

Both blind employees and their employers can benefit from such resource centers and professional organizations. Not only do such efforts provide contact between blind individuals in the same professions, they serve to stimulate motivation while providing useful information and experiences. Information and guidance for employers or potential employers on equipment and personnel can also be provided by such organizations. Any field occupied by a reasonable number of visually impaired employees could benefit by forming its own organization and/or resource centers.

Researchability:

Long-range, longitudinal studies of such organizations and resource centers would ultimately provide an accurate assessment of their usefulness and functionality.

Larkin, C.
OPPORTUNITIES FOR THE BLIND IN PUBLIC SERVICE EMPLOYMENT.
Journal of Visual Impairment and Blindness, 1977, 71, 319.

Purpose:

This article describes a program which assists blind persons in obtaining jobs provided by Federal grant funds.

Content:

Since 1970, cities, counties, and states have received Federal grant funds to provide public service employment jobs for persons who were unemployed because of adverse economic conditions. In the six years preceding this article, however, blind people rarely obtained employment under any of these programs. The city of Atlanta, GA instituted a program to improve this situation. By changing grant nomenclature and earmarking specific grants for special work programs, the city was able to by-pass obstacles binding the hiring of disabled persons. At the time the article was written, Atlanta's program had resulted in the employment of 15 blind persons.

Implications.

Although governmental funding to provide jobs for the unemployed may be available to the general population, blind persons and other handicapped individuals are often by-passed by such funds. Due to technicalities, regulations, or specific restrictions, capable blind individuals are oten not eligible for such benefits. Alternatives to this problem can result in efforts to circumvent such obstacles. Projects such as the Atlanta model can be pursued and successfully set up by any community. It may not be easy to overcome existing programs, but active and well-planned efforts can change these existing programs and allow blind unemployed workers to be brought into the system.

Researchability:

Thorough review of any existing program for the unemployed which does not benefit the blind population should be carried out. Research into ways existing programs, grants, and other governmental funds may be made more available to unemployed blind individuals is called for. As with any program, follow-up research on long term results is a must before conclusions on usefulness and efficiency can be made.

Bauserman, C. M., Wright, S. T., & Messer, W. J.
THE ORIENTATION AND MOBILITY-VOCATIONAL PLACEMENT COMBINATION.
Journal of Visual Impairment and Blindness, 1977, 71, 118-121.

Purpose:

This article describes how an orientation and mobility specialist with additional training in job placement of the blind and visually impaired worker can be used to assist vocational rehabilitation counselors in the placement process.

Content:

The authors contend that a person trained in orientation and mobility as well as job placement can be a vital asset to the vocational rehabilitation counselor in locating competitive employment for the blind and visually impaired person. The vocational rehabilitation job specialist needs this combination of training to "sell" the product (rehabilitated, trained blind workers) to doubting employers.

Major objections, including those of safety and mobility, made by a potential employer may be met by the orientation and mobility instructor. The placement process recommended includes the following steps:

1. having a clear understanding of one's objective, i.e. selling the product,
2. arranging for and interviewing top management,
3. delivering a sales presentation in which the concept of the competent blind worker is sold, and
4. arranging for job analyses in the plant.

Examples of employer questions related to orientation and mobility skills of the potential employee are presented as are strategies of response. The authors recommend that the plant survey not be done until all objections of the employer toward the visually impaired person have been met.

Techniques useful in meeting employer objections include a portfolio which presents visually impaired workers in the employer's region, positive letters of employers of visually impaired workers, etc. Steps in the plant survey are presented, as are the principles of the two phases of job analyses for the visually impaired worker:

1. determining the demands of the job -- how, why, and what skills are required, and
2. ways a blind person can accomplish the same task.

Criteria for jobs that may be performed without sight are discussed. Cooperation between the orientation and mobility specialist and plant supervisors is essential for adequate job analyses.

A case history is presented. Successful placements include jobs in a furniture factory as a rub room packer, plastic molding cutter, and "jitterbug" sander operator.

Implications:

Utilization of orientation and mobility specialists as advocated by the authors will require modifications in the orientation and mobility curriculum as well as modifications in staffing patterns and utilization of staff by vocational rehabilitation agencies. It should also be recognized that many orientation and mobility instructors would not want to specialize in vocational placement work.

Researchability:

The argument made by the authors needs to be evaluated, as does the effectiveness of the portfolio as a placement aid. These are important issues not only for administrators of rehabilitation agencies, but also for educators who develop the curriculum for orientation and mobility educational programs.

Kirchner, C., & Aiello, R.
SERVICES AVAILABLE TO BLIND AND VISUALLY HANDICAPPED PERSONS IN THE U.S.: A SURVEY OF AGENCIES.
Journal of Visual Impairment and Blindness, 1980, 74, 241-244.

Purpose:

This article statistically reports on the kinds of services available around the country for legally blind and other visually impaired persons.

Content:

The American Foundation for the Blind's (AFB) Directory of Agencies Serving the Visually Handicapped in the U.S. is widely used as an information source, but one area, however, has been largely untapped. This is the information needs of policy-makers and those who help to influence policy regarding blindness-related services. This area has remained untapped because the information contained in the Directory has not been statistically compiled. This article reports on such a statistical compilation of services from one of the major subsets of agencies in the 20th edition of the Directory (1978). The survey used to compile the data for this analysis was concerned mainly with determining what specialized services were available in:

1. schools for the blind, and
2. rehabilitation agencies.

Thus, not all categories of organizations in the Directory were surveyed, nor, consequently, are they included in the statistics compiled. The results yielded detailed information on services provided or contracted by general category, percentage of agencies providing each general category, and percent of all agencies. A relatively easy-to-follow table presents the data in a concise, organized fashion. General categories surveyed included:

1. client assessment and counseling,
2. recreation,
3. reading,
4. health,
5. employment, and
6. rehabilitation.

Geographical accessibility was studied by looking at four broad census regions. The data pointed out what has already been suspected: there is a problem of maldistribution of services. It appears that services are not necessarily concentrated in regions where they are most needed. Maldistribution of services is a complex matter which rarely has been adequately measured. To do so would require looking at numerous involved details, but the data presented here did not permit such a detailed analysis.

To provide a brief, analytic perspective of the results of these statistics, the notion of services to the blind as forming a "blindness system" is useful. In this system, "supply," "demands," and "needs" factors co-exist in a complicated and not necessarily real balance.

Implications:

We may not be fully utilizing all of our existing information on services for blind persons. Statistically compiling available data may provide new insights and more utilizable information.

Results from this one study show that "supply," "demand," and "needs" are not necessarily balanced. Reaching an ideal balance should not be impossible, but will take time, effort, and a careful analysis of the problems. Our goals for providing maximum rehabilitation for visually impaired persons in the future should include such a balance.

Researchability:

Since maldistribution of services for the blind population is such a complex matter, it can only be studied by very detailed analyses, looking at both regional and rural/urban dimensions, and taking into account not only agency location but also numbers served, service mix in relation to local demand, transportation to local demand, and transportation arrangements. Further research involving statistical compilation of existing and new data is needed to provide a more valid and empirically-oriented approach to the fields of vocational rehabilitation.

Dickey, T. W., & Vieceli, L.
A SURVEY OF THE VOCATIONAL PLACEMENT OF VISUALLY HANDICAPPED PERSONS AND THEIR DEGREE OF VISION.
The New Outlook for the Blind, 1972, 66, 38-42.

Purpose:

The article presents results of a survey of counselors serving a large population of visually handicapped persons to ascertain:

1. which occupational areas afford maximal opportunity for placing visually handicapped individuals,
2. what the range of visual acuity is among those being placed, and
3. what questions are most frequently asked by potential employers.

Content:

Staff members of the Job Development and Placement Course at Southern Illinois University mailed out questionnaires to graduates of their course working as counselors for blind people. The questionnaires were designed to elicit information regarding the distribution of placements made over a two year period in 18 different job areas in relation to degrees of blindness. In addition, counselors were asked to indicate the kinds of questions most frequently raised by potential employers regarding the employment of blind individuals.

The emphasis in this study was on occupational areas where blind persons are competing with sighted persons. The 18 job areas presented in the questionnaire included eight professional and ten non-professional fields. The levels of visual acuity were broken down to:

Category 1 - above 20/200 (partially sighted);
Category 2 - 20/200 or less (functional vision);
Category 3 - totally blind (no functional vision).

A total of 77 usable questionnaires were returned (34.2% of the number mailed out), yielding information on 1,733 clients in the 18 specified occupations. These data revealed the greatest number of placements in a single area were made in industrial (600), with self-employment (191) second, and clerical (160) third; 43.4 percent had visual acuity of 20/200 or better, 42.9 percent 20/200 or less but were not totally blind, and 13.7 percent were totally blind.

Among clients placed in non-professional occupations, 45.3 percent had vision of 20/200 or better (28.6 percent for professional occupations). However, 71.5 percent of clients placed in professional occupations were legally blind (54.8 percent for non-professional).

Employers' greatest concerns centered around insurance, in all instances, Workman's Compensation. Employers expressed the mistaken impression that if they hired a blind individual, insurance rates would automatically go up. Other concerns voiced by employers related to mobility, safety, vision required, and flexibility.

Implications:

Entrance into higher paying professional fields does not seem to be hindered by a decreased degree of visual acuity, and although degree of acuity does not seem to greatly restrict the number of occupational areas open to blind persons either, unrealistic and invalid employer concerns do. Increased education of potential employers is needed.

Researchability:

The significant differences in visual acuity between professional and non-professional occupations may be due to artifacts of the present study. Further work is called for to investigate several possibilities:

1. The percentage of partially sighted individuals seeking employment in professional areas without the intervention of counselors may be substantially higher than seen in this study.
2. The higher percentage of legally blind persons in professional occupations may be because salaries in non-professional occupations rarely present an incentive to reject unemployment benefits.

Extending the present study to a more representative spectrum of the population might clarify such possibilities, as well as increase the general external validity of the study.

Brazelton, F. A., Riley, L. H., Mehr, E. B., Rosenbloom, A. A., & Karb, D. R.
A SYMPOSIUM ON THE REHABILITATION OF THE PARTIALLY SIGHTED.
American Journal of Optometry and Archives of American Academy of Optometry. 1970, 47(8), 585-587.

Purpose:

This article reports on a symposium dealing with rehabilitation of the visually handicapped and key elements to be considered in planning such rehabilitation.

Content:

There has been a rise of interest in all types of rehabilitation efforts and a positive change in public opinion toward handicapped people since the end of the second world war. Emphasis has finally begun to change from structuring a world for people who are handicapped to fitting handicapped people to the world. The papers of the symposium discussed these changes and their applications to optometric care of visually handicapped people.

A key theme concerned the impact of psychological problems of low vision patients on vocational rehabilitation: the effects of visual impairment determine the outlook for successful use of visual aids and rehabilitation. Rehabilitation must be viewed as task oriented for each individual client and his particular needs.

A report was given on a vocational rehabilitation program for low vision clients in which collaboration between a state rehabilitation agency and an optometric low vision clinic resulted in a return to employment or education by over 90% of the clients.

Implications:

For maximum favorable results to be obtained from vocational rehabilitation of visually handicapped people, the psychological effects of visual impairment must be understood and evaluated. Furthermore, rehabilitation must be viewed as task oriented rather than as an attempt to restore some arbitrary norm of visual acuity and functioning.

Researchability:

Since the psychological problems of low vision patients are unique to this particular population, insight into specific problems and the best modes for resolution should be most advantageous in assisting vocational rehabilitation.

Guha, S. K., & Anand, S.
A SYSTEM TO ENABLE THE BLIND TO WORK INDEPENDENTLY ON THE CENTER LATHE.
Journal of Visual Impairment and Blindness, 1980, 74, 136-141.

Purpose:

This article reports on a research project aimed at formulating concepts that would enable blind individuals to make full use of a wider variety of industrial machines.

Content:

So far industries have employed blind individuals mostly in repetitive tasks. This study, conducted in an industrial setting in India, attempts to show that with special accessories and appropriate work planning, totally blind persons can perform varied, non-repetitive tasks independently. Since the center lathe and drilling machines are widely used in industry, they were selected for the study.

After observations and interviews were conducted of sighted operators of these machines, modified methods and accessories enabling the blind individual to perform the same tasks were developed; these methods and accessories relied on the senses of touch and sound.

The modifications were then tested in actual practice. After a period of initial adjustment, it was found that individuals without sight can perform all operations a sighted person can perform, including turning, slotting, threading, drilling, and taper turning to specific dimensions. This work may be done fully independently without the aid of sighted intervention. Speed of work is about 75% of that of the sighted worker.

Implications:

Since it is generally assumed that blind persons in industry can effectively handle only jobs that involve repetitive performance of a few simple movements, placement has been restricted by a small spectrum of tasks. As such repetitive, simple jobs can easily be automated, the blind worker is perpetually in danger of loosing his job to automation. Even when workers are kept on, management may feel that it is giving out a dole for helping a social cause. Invariably these feelings reach the blind worker, so he is made to feel less than equal and gets less job satisfaction.

Enabling blind workers to engage in work that is as varied and independent as his sighted co-workers would alleviate such problems and open up a whole new range of career possibilities.

Researchability:

Research regarding senses other than sight for machine operation should provide a great deal of concept generating information. The wide variety of tools, jobs, and modifications seems virtually unlimited. In order to test methods and modifications more thoroughly and empirically, studies need to be carried out with a significantly large blind or visually impaired population. It is only with such a population that the actual efficacy and safety of the new techniques can be accurately verified.

Dormady, B.
TEACHING EMPLOYERS HOW TO COMMUNICATE WITH DEAF MULTIPLY HANDICAPPED PERSONS.
Journal of Visual Impairment and Blindness, 1980, 74, 391-393.

Purpose:

This article presents an account of a one-day brainstorming meeting to acquaint potential employers with special needs of deaf-blind multiply handicapped persons.

Content:

Approximately one-half of the 20,000 deaf and blind multiply handicapped rubella victims in this country will be entering the job market by 1985. Twenty-two representatives from education, health, business, nonprofit organizations, hospitality organizations, and government agencies in central Florida met for a day with representatives of various state agencies for the deaf, blind, and multiply handicapped to discuss job skills needed by these individuals. Communication, they concluded, was the biggest obstacle, and methods to overcome this barrier were explored.

The purpose of the meeting was to sensitize employers to the problems of the deaf and blind multiply handicapped individual and to open communication among employers, rubella victims, and professionals working in the victims' behalf.

The meeting included an extensive role-playing session in which employers experienced what it means to have multiple handicaps. Through the use of blinders, special glasses, ear plugs, and wheelchairs, participants were able to simulate various handicaps and at the same time role play various job related situations such as interviewing, transmitting job information, and multilevel communication.

The Fleury Foundation (which initiated the session) believes that the more nonhandicapped people are aware of the problems and realities of the multiply handicapped person, the better the understanding will be in work-situations, and all concerned will benefit.

The understanding gained by participants of this particular workshop, for instance, led them to come up with many insightful suggestions to assist communication between handicapped employees and nonhandicapped employers.

Implications:

Through efforts such as this brainstorming session, employers are slowly being encouraged to overcome the social hurdles of hiring handicapped persons. As industry becomes more responsive, it is important that the employer be made more aware of the special nature of various handicaps so that jobs may be modified accordingly.

Researchability:

It is the purpose of rehabilitation engineering companies to design the concept of a job according to the person who will perform it. It will take considerable research and creativity on their part to come up with jobs that can be filled by multiply handicapped people. Such research will enable potential employers to reconstruct their offices and adapt the physical set-up of a job to meet the needs of blind and other handicapped individuals.

Aston, T.
TECHNOLOGY AND EMPLOYMENT.
The New Beacon, 1979, 63, 29-32.

Purpose:

This article covers the changes which have taken place in the employment of blind persons in Great Britain over the last two decades as a result of technological advancements.

Content:

The author first lists three factors responsible for changes in blind employment:

1. Funding of rehabilitation programs designed to help blind persons find employment in Wales and England increased; placement was primarily in factories and sheltered workshops. In Scotland and Northern Ireland, blind persons were placed in all types of jobs.
2. Technological advancements all but eliminated routine jobs. Since most blind persons employed in factories held such jobs, they were forced to shift to other jobs. Most of those who shifted obtained jobs as assemblers, packers, or running other types of machines. Many also started looking to white collar rather than blue collar jobs.
3. The make-up of the blind population changed. Congenitally blind persons began attending college in greater numbers. This was due to the enhancement of educational facilities.

In addition, the causes for blindness in adults shifted from cataracts, detachment, or glaucoma to general medical conditions such as diabetes.

The author sees technology as influencing employment in two ways:

1. generally affecting everyone's employment, and
2. specifically affecting those who are usually handicapped: the development of new aids and equipment to meet the needs of blind workers.

Finally, the article details the cost of such new equipment. He also points out that equipment alone is not sufficient to make a successful worker; motivation and basic skills such as reading and writing Braille are equally important.

Implications:

The author states that new technological developments are allowing blind persons wider choices in types of desired employment. This implies that vocational rehabilitation programs must gear themselves to help blind persons prepare for these opening fields by both making them aware of the opportunities and providing the necessary training to allow the interested person to gain employment in these fields.

Researchability:

A project designed to determine exactly what jobs new technological developments have opened for blind persons would seem to be in order. In addition, the study should determine which jobs traditionally held by blind persons have been or are being eliminated by technological advances. Finally, another study to determine the sorts of training needed to place blind persons in the newly opened jobs and make employers aware of blind persons' abilities to perform the jobs is needed.

Scadden, L. A.
TECHNOLOGY AND THE LABOR MARKET OF THE FUTURE: IMPLICATIONS FOR BLIND AND VISUALLY IMPAIRED PERSONS.
Paper presented at the Helen Keller Symposium on Enhancing Employment Opportunities for Blind and Low Vision Persons, New York, NY, October, 1981.

Purpose:

This article discusses the implications and impact of current sensory aid technology on the labor market for blind and visually impaired persons.

Content:

Many job situations which are normally considered inaccessible for visually impaired individuals can be made accessible by appropriately matching the right person with the proper sensory aid. Such matching can provide a vast increase in the number of jobs available.

Sensory aid technology is a rapidly expanding field. Currently the best way to classify sensory aid technology is on the basis of information display. These information displays are divided into three broad categories:

1. tactile,
2. auditory, and
3. visual.

The importance of being able to acquire and handle alphanumeric or printed material in whatever manner it is displayed is increasing in virtually all employment environments. The future promises an increase in such job task requirements. If the limitations in reading and manipulation of such visual information can be reduced, so can the real barriers to competitive employment for visually impaired persons.

Matching individuals with appropriate sensory aids for the appropriate job task is of prime importance in the effective utilization of sensory aid technology. A thorough understanding and familiarization with what is available in sensory aid devices is therefore essential. The author gives a sweeping description of the major devices presently available. Tactile display devices include Braille, electro-mechanical vibratory displays, and graphic displays. Auditory displays are of two major types: speech output and tonal coded displays, and include conventional magnetic recordings on through the most recent technological advancement of speech-synthesizers. The third class of aids, visual displays, may be the most important class since it is estimated that over 90 percent of severely visually impaired individuals have some functional residual vision.

The most common techniques to improve visual displays are:

1. the use of increased illumination;
2. magnification by a lens system;
3. enhanced contrast accomplished through display modification; and
4. closed-circuit television magnification.

Several factors must be considered regarding the selection of appropriate devices. Primary factors include:

1. the visual ability of the user;
2. the actual information requirements of the tasks to be performed;
3. the display preference of the individual;
4. the availability of the desired device; and
5. the cost of the system and of its installation.

The author concludes by commenting on the unavoidable and important consideration of cost. He offers several realistic suggestions for financing the purchase of sensory aids and emphasizes the need for adequate programs to assist with such financing.

Implications:

Job development for visually impaired individuals is mainly limited by the imagination of the potential employee and employer. Optical and electronic visual enhancement techniques greatly widen the range of employment possibilities. Keeping this in mind, it should be stressed that the visually impaired worker can usually perform the same task as his fully-sighted counterpart by using slightly altered work environments or special aids and devices.

Researchability:

Possibilities for research in the field of sensory aid technology are implied. Speech synthesization and rapid electronic recording of Braille seem to be two of the many areas which warrant more intense research. Modification of work environment is also an area where research may be most beneficial. The range of possibilities for research in these areas is great, and it will probably become more intensely studied as automation and technology continue to increase.

Barrage, N. C.
UTILIZATION OF LOW VISION IN ADULTS WHO ARE SEVERELY VISUALLY HANDICAPPED.
The New Outlook for the Blind, 1976, 70, 177-181.

Purpose:

This article discusses some of the variables related to effective and efficient use of residual vision by adults, especially as they relate to the process of rehabilitation.

Content:

The author first emphasizes the need to realize that 89% of the blind population have some degree of residual vision. The emphasis for these people has been to help them compensate for their lack of sight through other senses, but the real focus should be centered on encouraging and helping them to make the most effective use of what vision they do have. The importance of differentiating between 1) adults who have had only residual vision for a short time (after a long period of full vision), and 2) those who have had only residual vision for most of their lives is needed.

The author defines "blindness" as applicable only to those who are unable to see light or take direction from it. The use of this specific definition is important because much of how a visually impaired individual functions is based on his self-perception. The self-perception is frequently shaped by the labels applied to him. As long as the individual remains motivated to be independent and continue to function, he will be a good candidate for successful use of his residual vision.

Attention is drawn to the fact that more concern should be demonstrated for individual needs and interests when assisting in the use of residual vision. A greater effort is necessary to encourage the use of restoration, optical aids, and adaptive training. The author states that "the under-utilization of optical aids is one of the most neglected areas in the rehabilitation of individuals with residual vision." Adaptive visual training is needed to help the individual to use his residual vision in the most effective manner. Vocational and occupational concerns are briefly mentioned. The major point made here is that the client must be considered as an individual and should not be treated solely on measured degree of visual acuity.

Independent travel and mobility concerns are discussed, and specific critical areas in the use of residual vision are discussed.

An area that is frequently overlooked is perceptual reorganization or development. The amount of vision left is important, but so is what the brain does with the visual messages. These messages are interpreted in relation to past experiences and memories. Use of the brain to develop imagination and deductive reasoning is a very effective way to develop perceptual abilities. This area deserves more attention.

The article concludes with a list of important variables which determine effectiveness in the use of residual vision:

1. motivation to use vision;
2. intelligence and thinking ability;
3. personality, self-concept, and attitudes about self and the world;
4. age at onset of visual loss and age at which rehabilitation begins;
5. type and degree of correction or optical aids possible;
6. nature of defect or disease;
7. family structure, needs, desires, and attitudes; and
8. past experiences and occupation.

Also included are some challenges for the future.

Implications:

As more visually impaired individuals learn to use what residual vision they possess, they will begin to shed the "blind" label, and their self-concept will receive a boost. With this increased self-concept paired with a useful residual vision, many occupations which had previously been thought closed to the visually impaired will be opened. The article lists several of these occupations.

Researchability:

Four specific areas for further research are noted by the author:

1. the role of vision in performing certain vocational skills;
2. an understanding of the way that low vision functions in movement and travel;
3. selection of the proper environments for training and matching an individual with appropriate training environment; and
4. development of theories, experimentation, and scientific study of the relation between certain degrees of residual vision and behavior functions performed by individuals.

Etherton, J. L.
A VISUALLY IMPAIRED PERSON'S COMMENTS ON EMPLOYMENT.
Journal of Visual Impairment and Blindness, 1980, 74, 359-361.

Purpose:

This article relates how the author, who is visually impaired, is able to function as program coordinator at the Lions Blind Center in Oakland, CA.

Content:

The author begins with a description of the methods used to be able to handle the record-keeping aspects of her job. Modification for use of existing files, a Rolodex, a daily calendar, transportation records, aids and appliances, and minutes of meetings and other information are described.

The author discusses some of the educational and recreational classes and events that she is in charge of administering. These include classes such as applied arts, home skills, and Braille skills. Recreational events include trips to Enchanted Hills, and a day on a houseboat where fishing is the major activity. Also mentioned are the fund-raising activities and the public relations and public affairs aspects of the job.

The author also lists some of the aids that are available for her use and some of the aids that would be helpful but are not presently available. The Perkins Brailler and light probe have proven to be the most valuable aids.

Implications:

Not only does this article spell out the methods used to do this specific job (which can then be duplicated by others), but it also serves as an example that with some ingenuity and determination, many jobs are indeed possible for the visually impaired individual.

Researchability:

Research into the aids used to complete the author's job would be useful to determine if through further development these aids could be made even more efficient. Also, an attempt to try and apply the strategy used to perform this job to other jobs that may have similar requirements is in order.

Silver, F. A.
VOCATIONAL REHABILITATION FOR THE VISUALLY IMPAIRED DIABETIC.
Journal of Visual Impairment and Blindness, 1978, 72, 374-376.

Purpose:

This article describes the specialized services the visually impaired diabetic requires in addition to usual vocational rehabilitation services.

Content:

As with any vocational rehabilitation program for the multiply handicapped population, services for the visually impaired diabetic must be designed to meet each individual's special needs. The basic services under a comprehensive plan include:

1. counseling and guidance,
2. physical and mental restoration services,
3. vocational training, and
4. assistance in job placement.

For the most part the services received are basically vocational rehabilitational in nature; the difference is the numbers of services provided and the length of various training programs. Unlike the non-diabetic visually impaired client, the diabetic brings with him a wide host of other generally handicapping problems ranging from emotional and mental to life-or-death physical conditions. The diabetic must be trained in self-administration of insulin and proper hygiene, and a correct diet must be made available. Counselor and rehabilitation center staff must cooperate in handling the diabetic's unstable physical and visual condition in addition to being prepared to cope daily with new complications and possible emergencies. The diabetic must overcome or adapt to all of these handicaps, in addition to his visual impairment, before he can function adequately in a job situation.

Implications:

Most diabetic visually impaired clients are diabetic first and then became blind as a result of their diabetes. This means that the diabetes is the primary and blindness the secondary handicap. Vocational rehabilitation programs dealing with visually impaired diabetics must strive to provide as comprehensive a program as is possible for their clients.

Researchability:

Surveys of other existing vocational rehabilitation programs for visually impaired diabetics may yield useful data with which to plan more efficient and comprehensive programs.

Brazelton, F. A., Stamper, B., & Stern, V.
VOCATIONAL REHABILITATION OF THE PARTIALLY SIGHTED.
American Journal of Optometry and Archives of American Academy of Optometry, 1970, 47, 612-618.

Purpose:

This article reports on a study which evaluated the effectiveness of optical aids in helping visually impaired persons to obtain employment or education.

Content:

Most previous studies describing the efficacy of low vision aids have dealt with populations that are heavily weighted with older, non-working individuals. No study to date has dealt with individuals who are in their active, productive years and who are seeking employment or education. It is this latter segment of the population for whom the concept of rehabilitation has special significance. This study was designed to deal with this particular population.

A total of 77 partially sighted and legally blind patients of the California Department of Rehabilitation were evaluated to determine whether any optical aid would be effective in enabling them to begin or continue toward their education or vocational objectives. In all previous studies of the results of low vision prescribing, emphasis was placed on the ability of the patients to read as an index of success. Where specific occupational requirements are involved, such a working distance is frequently impractical. This study also realized that psychological factors are important in the rehabilitation of the low vision individual. Former studies have shown that:

1. personality characteristics,
2. the adaptation, or lack of it, to visual disability,
3. realism of the individual's aspirations, and
4. motivation

are the most important influences on the success of low vision correction. Therefore, this study concentrated on psychological factors and correction of low vision specific to vocational settings. Low vision aids were prescribed after each patient's chosen vocational setting was identified. Correction was aimed at enabling performance of each individual's vocational task (not just ability to read).

Results showed a high rate of employment, or continuance of educational endeavors, due to use of the aid. It was concluded that, in most cases, regardless of visual acuity, age, and pathology, a thorough psychological screening and strong motivation on the part of the patient to attain a desired vocation resulted in a higher-than-usual percent of success. It was also noted that the effort required to prescribe low vision aids for specific vocational tasks and work environments is well worth the inconvenience and is counterbalanced by a higher degree of vocational success.

Implications:

The results of this study emphasized the need to be more discriminating when prescribing low vision aids. Visual correction should enable each individual to function at his specific level of realistic aspirations and motivation. That is, success should not be judged just on ability to read printed matter, but on vocational and educational objectives as well. It must also be emphasized that the selection of a vocational objective must precede the determination of visual aids required since it will depend most on nonvisual factors such as intelligence, education, interests, and technical skills or aptitudes.

Researchability:

Replication of studies such as this, combined with research looking at other variables such as illumination levels and color contrast factors in the work environment, should maximize the effect of low vision aids on vocational rehabilitation.

Allen, J. I., Songco, D. C., Plexico, P. S., & Morform, R. A.
A VOICE OUTPUT MODULE DEVELOPED FOR A BLIND PROGRAMMER.
Journal of Visual Impairment and Blindness, 1981, 75, 157-61.

Purpose:

The article describes a voice output module used by a blind computer programmer for reading messages, programs, and files.

Content:

Comprehension of machine output in the form of printed characters and visual displays has been a major obstacle for blind computer programmers. The aid of a sighted person has always been necessary to assist the blind programmer in reading visual printouts. In recent years the technical evolution of the speech-by-rule synthesizer has evolved to the point where such problems can now be feasibly overcome. The system, which translates unrestricted text into basic consonants and vowel sounds according to grammatical rules, allows a blind individual to actually "read" printed material with a machine. The article reports on the successful one-year trial of such a voice module by a blind computer programmer. The module was plugged in between a typical computer terminal and its link with a local computer. Extensive text review and voice output controls were also incorporated. With the use of the module, the programmer was able to read computer printout messages, programs, and files without the assistance of a sighted person. No major problems were encountered, and the authors believe that the most efficient means for a blind user to interact with a computer is to use such a full sound speech output module.

Implications:

Now that technology has enabled a blind person to overcome the hurdle of printed material without the necessity of translation into Braille, many new fields and job possibilities should be opened. At the present, however, the high cost of such equipment is a major drawback. Until the price of voice output modules becomes more competitive and practical, widespread use cannot be expected.

Researchability:

In general, a voice output module should significantly reduce the blind employee's need for reading aids such as Braille output and Optacon scales. Nevertheless, research is needed in this area to assess which devices would be most efficient in which situations.

It is probable that in some situations, such as the more perplexing computer programming tasks involving unexpected formats and system errors, Optacon scans, Braille output, or assistance from a sighted person may be more efficient. Controlled studies designed to assess the use of voice modules in a wide variety of jobs and situations should yield insight into this possibility.

Fried, N. E., & Kohlbacker, M. K.
WORD PROCESSING AIDS BLIND PROGRAMMER.
The Office, Nov. 1978, 88, 52; 56; 58.

Purpose:

This article presents a means of increasing the efficiency of blind computer programmers through the use of word processing aids.

Content:

There are major differences between the operating procedures of a sighted and a blind programmer. A major difficulty experienced by blind programmers is that they have to do their own key punching from Braille instructions. This not only ties up the keypunch machines for excessive periods of time but also reduces the productivity of the programmer.

A solution to this problem was devised by a supervisor. It basically consists of the modification of an outline procedure that allows a programmer to dictate program statements to employees in the keypunch room. A problem arose but was quickly solved with the development of a specific form for transcription of the dictation.

The use of this dictation process for the first year proved to be beneficial in several ways:

1. The programmer had more time to devote to his primary responsibility.
2. He was able to eliminate excessive overtime and keypunch machine usage.
3. The experience gained in dictation allowed the programmer to become involved in writing program documentation, resulting in job enrichment.

Implications:

The use of this new procedure not only allows for more productivity hence more employability, but also the skills gained in dictation can be used to perform other related tasks such as writing program documentation.

Researchability:

Studies to further refine the newly developed transcription form as well as establish a means of spreading this method into other industries would serve to improve both this method and its product.

ATTITUDINAL BARRIERS

Baker, L. D.
AUTHORITARIANISM, ATTITUDES TOWARD BLINDNESS, AND MANAGERS: IMPLICATIONS FOR THE EMPLOYMENT OF BLIND PERSONS.
The New Outlook for the Blind, 1974, 68, 308-314.

Purpose:

This article reviews previous research to show a negative relationship between authoritarianism and propensity to hire persons with visual handicaps. The author presents theories on how aspects of authoritarianism are responsible for attitudes toward blind people and how the economic system develops and promotes authoritarian persons.

Content:

Several studies are cited which show that executives espouse positive ideas concerning blind persons but are still unwilling to hire them. Other studies are discussed which show that authoritarian persons are likely to have negative attitudes toward blind persons. The author feels that these attitudes result from characteristics of the authoritarian personality itself, specifically the traits of valuing strength, authority, and association with influential persons: persons with visual handicaps are perceived as being helpless, dependent, and socially inferior. The authoritarian tendency to accept widely held beliefs causes them to accept prevalent misconceptions, and authoritarian persons have a low tolerance for ambiguity, and blind persons may be seen as being an ambiguous stimulus.

Studies are reviewed which show females more positively disposed to accept and help blind persons than are males, but no sex differences for authoritarianism are presented. Lastly, studies showing a positive correlation between authoritarianism and position in the business hierarchy are discussed.

Implications:

The author sees this information as indicating that our economic system fosters the selection and promotion to important decision making positions of persons high in the trait of authoritarianism. The consequent negative attitudes of top level executive toward blind persons can explain their high unemployment: top level managers have a natural aversion to blind persons.

The author suggest three courses of action to remedy the negative attitudes of management toward blind employees:

1. Identify which types of organizations are more or less likely to accept blind workers.
2. Educate businessmen and other employers concerning the "potential natural aversion" to blind workers and how it relates to authoritarianism.
3. Instill affirmative action programs to help deal with the problem.

Researchability:

The author suggests several routes for further investigations of the relationship between authoritarianism and attitudes toward blind persons among people involved in determining hiring, recruiting, and selection policies. These same factors should be studied in persons directly responsible for supervision of blind workers: their sighted co-workers. These aspects could also be studied as they relate to size, industry, and type of product or service of potentially employing organizations. There is also a need to further explore sex differences in attitudes toward blind persons.

Ahr, C. J., Kapust, J., & Lawrence, P.
BEHAVIORAL TRAINING OF SUPERVISORS IN AN INDUSTRIAL SETTING FOR THE BLIND.
Journal of Community Psychology, 1977, 5(2), 160-165.

Purpose:

This article discusses the use of procedures in which behavioral consultants directly manipulate reinforcement for the desirable behavior of employees.

Content:

Training in principles of behavior assessment and modification was provided for first-line supervisors in an industrial situation employing the occupationally handicapped. Evaluation of training effectiveness was accomplished through the use of a multiple baseline design. Results suggested that training supervisors in the use of behavioral principles represented a significantly effective procedure in the modification of employees' statements reflecting dissatisfaction, primarily with management and supervisory personnel. This study represents an empirical demonstration of the value of training first-line supervisors (foremen) in the observation, recording, and modification of employees' verbal behavior in the work setting.

Implications:

The failure of this training to affect significantly positive statements suggested that the effective use of praise by supervisors for positive employee statements is problematic within the circumstances of this study.

Researchability:

There is a need for more powerful training procedures for increasing praise verbalizations.

Holden, C.
BLIND MEDICAL STUDENT: OVERCOMING PRECONCEPTIONS.
Science, 1976, 191, 1241-1244.

Purpose:

This article relates the successes and obstacles faced by a blind medical student.

Content:

A 20-year-old blind male, David Hartman, was admitted to Temple University Medical School. At the time the article was written, he had successfully completed all but his senior year of training. He had completed, with only minor deviations, all the courses required of his sighted colleagues.

The article describes in depth many of the numerous problems encountered by Hartman and how they were resolved. Although there are cases of doctors who continue to practice after becoming blind, there has only been one previously known case of a blind individual going through medical school. Hartman was accepted on an experimental basis, as number 181 in a usual entering class of 180, which circumvented any dispute over whether he was occupying a place that might have gone to someone with a better chance of graduating. Other than this, no special arrangements were made.

Hartman plans to become a psychiatrist, with special emphasis on the physical and psychological rehabilitation of handicapped individuals.

Implications:

While this student's successful conquest of medical school may help fracture some preconceptions about limitations of blind individuals, it by no means presages a deluge of blind entrants to medical schools. To overcome their handicap, blind applicants have to be outstanding academically and strong emotionally. To succeed at such an endeavor undoubtedly takes a special combination of motivation, persistence, academic talent, and emotional stability. All of these traits should be considered by admissions officials of any professional school before making a decision on a blind individual's application. With the proper balance and quantity of such traits, blind persons may be able to accomplish much more than our preconceived notions dictate.

Researchability:

There are signs that blind people with a good chance of succeeding in professional schools will be given more consideration in the future. Admissions processes must be reevaluated and researched to put more emphasis on an applicant's personal qualities and ability to learn, and less on just ability to retain information and freedom from physical handicaps.

Nichols, W. H.
BLIND PERSONS IN DATA PROCESSING: THE ATTITUDE OF INDUSTRY.
The New Outlook for the Blind, 1970, 64, 293-296.

Purpose:

This article discusses the over-all positive attitudes and opportunities that exist for blind persons in this occupation.

Content:

Emphasis is on the changing attitudes of top, middle, and line management personnel towards the employability of blind programmers. Management attitudes have improved with experience, thus benefiting the blind person in terms of better paying jobs, greater use of talents and abilities, and promising futures.

The role of agencies lies in their responsibility:

1. to learn more about the needs of the industry,
2. to maintain high standards in seeking out qualified blind people to be referred to training centers, and
3. to seize the opportunity, at all levels of education, to counsel and encourage qualified students to prepare themselves for careers by going on to a university or technical institute.

Specialized training facilities must ensure that training in all areas meets the needs of industry.

Implications:

Industry needs to hire and train the qualified employee who is blind as routinely as is presently done with sighted employees.

Researchability:

Industry and training areas need to find a solution to the problem of advancement opportunities for the blind programmer.

Freund, D.
BLIND TESTERS IN THE FOOD AND FRAGRANCE INDUSTRY.
The New Outlook for the Blind, 1973, 67, 276-277.

Purpose:

This article presents the advantages and success rates of blind individuals who work as tasters and smellers in the food and fragrance industry.

Content:

Quality evaluation of how a product should smell or taste is usually performed by special testers. The testers may be a panel of five to eight members who compare and discuss their opinions. If they think there is any deviation from set standards, then corrections can be made. Often testers must work in darkened conditions or with blindfolds because of the distracting effect of color on the senses of taste and smell. It would be logical to assume that blind individuals would be well suited for these occupations.

The qualities of a good tester include:

1. a cooperative attitude towards others,
2. a certain education level, and
3. the abilities to express and discuss one's findings and to memorize tastes and smells. (An acute sense of taste and smell is not required because that is developed through training and practice.)

With time, more and more companies are overcoming their prejudices about blind workers. The screening for these positions is done by rehabilitation workers of agencies for the blind and takes about three weeks.

Actual training in the company takes about eight months, depending on the methods used. During training the blind employee is paid daily. Upon completion of training, he is paid the current rate for laboratory technicians with the possibility for advancement and raises.

Two firms that have reported outstanding success with blind testers are General Food and Glidden Durkee.

Implications:

Assuming he has the necessary characteristics, this seems to be an area in the world of work that could be an important employment possibility for the visually impaired job seeker.

Researchability:

Research directed towards investigating other areas in which blind individuals tend to excel over sighted individuals may provide new ideas for job opportunities for visually impaired persons. Possible areas of investigation may include concentration abilities, tactile sensations, and hearing. Studies concerning tactile and auditory sensory enhancement by visually impaired individuals are of primary importance.

Marshall, P.
BLIND WORKERS: A MATTER OF PERSPECTIVE. PLACEMENT COUNSELOR SEES MISCONCEPTIONS ABOUT HANDICAP AS BIGGEST JOB BARRIER.
Manpower, 1974, 6(7), 14-20.

Purpose:

This article attempts to enlighten the public on the fact that qualified blind individuals work as well as sighted workers if employer's concerns about hiring the handicapped can be allayed.

Content:

The blind job seeker's biggest difficulty is not his handicap as much as it is the misconceptions about the blind that permeate our society. One of the most widespread misconceptions is that blind people cannot see. That is not wholly true, for many legally blind people have residual vision.

The clientele of the Chicago Lighthouse for the Blind consists of blind individuals enrolled in its workshop or its training programs. Additionally, some blind individuals come only to seek help in finding employment. Clients are mainly middle age or older and generally have a high school education.

Large segments of the blind population do not seek work. Age, severe or additional complications, and acceptance of defeat by blindness are factors that account for this. Last year 41 blind individuals were placed in jobs in a city that had 10,000 blind individuals.

Job development is a key element in making placements. This amounts to finding jobs for blind workers where employers do not know such jobs exist, then convincing employers that a blind individual can do the work as well as a fully sighted individual.

It should be remembered that there is more to moving blind people into employment than lining up their skills and visual status against job opportunities. Some psychological adjustment or relearning of tasks may be necessary. However, the Lighthouse provides services to deal with these need areas.

Implications:

When job training is teamed with positive employer attitudes, then employment of blind people should be highly successful. Systematic presentation of material and information about blindness and blind employees' successes seem to diminish employers' objections and fears. Persistence on the part of the placement specialist and prospective blind employee seems to aid in success of employment.

Researchability:

The effectiveness of different specific methods for allaying the fears and misconceptions held by potential employers and the public needs to be studied as do the specific factors which prevent the majority of blind individuals from even attempting to enter the work force.

Rossi, P., & Marotta, M.
BREAKING BLIND STEREOTYPES THROUGH VOCATIONAL PLACEMENTS.
The New Outlook for the Blind, 1974, 68, 29-32.

Purpose:

This article presents a method to break some of the stereotypic viewpoints of blind persons that are held by society at large and often by blind persons themselves.

Content:

The authors state that an individual's self-concept is largely determined by the way in which others react to him. Often blind individuals are reacted to stereotypically and therefore possess a negative self-image. It is on this base that Scott (1969) proposed that "the disability of blindness is a learned social role." When a blind person accepts this premise, there is hope for an autonomous change of self-concept.

One way in which the stereotypical view can be broken is through an effective public education program and integration of blind with sighted individuals. A second way to break down sterotypes is through the efforts of vocational rehabilitation agencies. This effort is easily broken down into two areas:

1. training visually handicapped individuals for positions that were previously closed to them; and
2. convincing prospective employers that visually handicapped persons can perform a job as well as sighted persons.

With these two forces working in conjunction, some non-traditional occupational areas that will begin to open up for visually impaired employees include funeral director, nuclear physicist, osteopath, salesman, and nurse. Many of these jobs can be performed with only slight modifications in the traditional equipment or work procedures.

The employment of the visually handicapped is of benefit both to that individual and society. Society benefits by obtaining a new productive member, and the individual benefits by gaining a new positive self-esteem.

Implications:

Potential for employment is unlimited once a positive self-esteem is achieved by a visually handicapped individual. The point at which relief in self is assured is the point at which constructive training toward a new occupation can begin.

Researchability:

Research is needed centering on specific methods and modifications needed to make these jobs accessible to visually impaired individuals. Effective development of these methods and modifications for as many occupations as possible would be an appropriate goal.

Wacker, C. H.
BREAKING THE COMPETITIVE EMPLOYMENT BARRIER FOR BLIND PEOPLE.
Journal of Rehabilitation, 1976, 42(3), 28-31.

Purpose:

The author discusses his efforts seeking jobs for clients who are blind in seven major corporations, efforts which followed a standard pattern of the vocational counselor performing clients' vocational responsibilities instead of preparing the clients themselves for independent competition in the job market.

Content:

A barrier of sympathetic negativism towards blind clients hurts employment efforts in competitive industry. This barrier can be removed by:

1. developing credibility for the professional equality of qualified blind workers;
2. going after jobs that are independently offered on the open market; and
3. competing without the visible support of rehabiliation center staff.

The author states that:

1. Prospective employers feel the need to create specially tailored jobs to "serve" the blind.
2. A negative impression exists of the need for protection of the "fragile" blind person.

It should be emphasized that people who are blind have the competitive capabilities of superior qualifications, compatible personalities, and other attributes that will enable them to work effectively and grow on the job.

Implications:

The negative barriers will only be broken when the blind client himself seeks, independent of interfering factors, his own employment by directly applying for a specific job.

Researchability:

Specifics on techniques to gain independent employment through confidence-heightened self-awareness and self-esteem are needed.

Clayton, I. P.
CAREER OPPORTUNITIES FOR VISUALLY HANDICAPPED PERSONS IN MARYLAND.
The New Outlook for the Blind, 1973, 67, 210-215.

Purpose:

This article reports on a survey of employers which was used to develop a pilot vocational program for blind and visually impaired persons.

Content:

The Maryland School for the Blind conducted a survey of employers in the state to determine how many blind persons were employed, in what kind of jobs, and employer attitudes toward hiring the handicapped. Former students of the school were also surveyed to determine their feelings about the vocational education they received and their suggestions for changes and improvements.

Many employers (118 out of 1,981) did not complete the questionnaire but rather provided comments expressing their reasons for not wanting to employ blind or visually handicapped workers: Reasons included:

1. no positions available;
2. work too dangerous;
3. budget does not allow; and
4. must consult insurance company.

Employer responses indicating the kind of jobs in which visually impaired or blind individuals are currently employed revealed a wide spectrum which included skilled, unskilled, professional, and paraprofessional positions.

The survey of former students disclosed pertinent information regarding the nature of their current employment, employment success, and specific reactions to the goals of this particular project. Recommendations from former students included:

1. greater and earlier exposure to the work world;
2. greater emphasis on social development; and
3. greater opportunities for students in making decisions regarding their conduct and future.

Using data provided by this survey, a pilot vocational education program was planned.

Implications:

Results of a survey such as this one suggest that the range and quality of educational opportunities or vocational education programs for people who are blind have not kept pace in either curricula or physical facilities with

the extensive development found in public schools. Also it is evident that misinformed potential employers may be a significant contributing factor to the unemployment of blind and visually impaired individuals.

Researchability:

Implications made from data collected from surveys such as this must always be made with care. The population tapped was self-selected since only those former students and employers who choose to answer the questionnaire were included. For greater external validity, some form of creative research must be contrived to contact a wider population without relying on self-selection: this may be difficult, if not impossible. In the meantime, it should be kept in mind that data from this and similar surveys should be interpreted guardedly. It is also obvious that a program such as the one planned here will need to be periodically re-assessed and re-evaluated in order to keep pace with changing market trends, training procedures, and student needs and interests. Longitudinally designed research needs to be utilized to evaluate the overall success of such programs.

Clark, L. L.
DEFINITIONS OF BLINDNESS: A NEED FOR THE RAISING OF CONSCIOUSNESS.
The New Outlook for the Blind, 1973, 67, 277.

Purpose:

This article cites the need to concretely define blindness.

Content:

The last ten years have seen a great deal of effort expended to point out to workers in the field that two persons with the same measure of visual acuity will behave differently. One individual will act as though he is blind and the other as though he is sighted. The difference lies in how they use their residual vision. Thus, the functional definition of visual impairment assumes an importance in daily life far beyond the importance of visual acuity numbers for professionals who work with blind.

The notion of functional capability recognizes wide variations in individual capabilities in vision. It also reflects the importance of residual vision than does any measure of acuity.

Implications:

A functional definition seems to be preferred to using acuity measures with blind people. This should allow for more freedom and less label-oriented limitations when applying for employment.

Researchability:

An urgent need exists to develop a study that will gain wide acceptance and will set down some universally accepted definition of the various stages of blindness. Only when this happens can real communication and progress occur.

Baker, L. D., Di Marco, N., & Scott, W. E.
EFFECTS OF SUPERVISORS' SEX AND LEVEL OF AUTHORITARIANISM ON EVALUATION AND REINFORCEMENT OF BLIND AND SIGHTED WORKERS.
Journal of Applied Psychology, 1975, 60(1), 28-32.

Purpose:

This article reports on a study designed to answer four questions:

1. Are blind and sighted workers reinforced differently?
2. Do persons high in authoritarianism reinforce workers differently than those low in authoritarianism?
3. Do males and females reinforce workers differently?
4. Do high and low authoritarian males and females reinforce blind workers differently than do sighted workers?

Content:

Sixty male and sixty female undergraduate students were selected from a pool of 800 students who completed a measure on authoritarianism (the Forced-Choice F scale). Only those scoring lowest and highest were used. Factor A was worker level of vision (blind or sighted); Factor B was sex; Factor C was authoritarianism of the subjects.

The subjects were given the background information, and workers were told they were participating in a study to determine the effectiveness of using closed-circuit T.V. to monitor subjects' performance. They were then asked to watch a worker and reinforce him, using a bell to indicate 2¢ added and a buzzer to indicate 2¢ deleted. The bell and buzzer could be used up to five times for each two minute period. Subjects rewarded the blind worker significantly more than the sighted worker.

The correlations between reinforcement and performance was .98 for the sighted workers and .99 for the blind workers.

There were no main differences for sexes or authoritarianism, and no significant two or three-way interactions were found.

Several explanations are offered for this:

1. Simple routine tasks are seen as fitting employment for handicapped persons. As such, blind persons were reinforced more for performing the tasks, and sighted persons were reinforced less because the tasks were seen as being below their abilities.
2. The general tendency to be altruistic toward blind persons may result in the supervisor giving greater reinforcement.
3. It is possible that the supervisors rewarded blind people more because they expended greater effort to reach the same level of achievement.

It therefore appears that supervisors need to use greater caution and objectivity when evaluating and reinforcing blind persons.

The authors note that demand characteristics may have caused persons higher in authority to respond altruistically because they believed it to be the socially approved thing to do.

Finally, the author sees the lack of any two or three-way interactions as evidence that the difference in reinforcement is a phenomenon directly related to the vision of the worker.

Researchability:

The postulated explanations for the difference in reinforcement in the implications section should be investigated further. It would also be fruitful to attempt to replicate the experiment using actual plant supervisory workers, blind workshop supervisors, and supervisors who are themselves blind. If the findings of this study are replicated, the next step will be to research means to train supervisors to deliver reinforcement to blind workers in a more realistic manner.

Kirchner, C., & Peterson, R.
EMPLOYMENT: SELECTED CHARACTERISTICS.
Journal of Visual Impairment and Blindness, 1977, 71, 239-242.

Purpose:

This article presents inferences drawn from two surveys:

1. 1976 Bureau of Census, "Survey of Income and Education," and
2. 1977 National Center for Health Statistics, "Health Interview Survey,"

and stresses the need for precision in describing concepts and measures for statistical purposes.

Content:

After comparison of the two surveys, the authors found a wide gap for people who are blind between "labor force participation" and "employment status." They draw inferences from the surveys to report on:

1. Labor force participation (low rates of labor force participation and high rates of employment for persons with visual loss of both sexes).
2. Employment status (few sex differences in employment rates of general population and people who are visually impaired).
3. Occupational status (overrepresentation of visually impaired persons in lower paid, blue collar categories).

Questions raised include:

1. Why is less than 1/3 of the working-age visually disabled population found in the labor force?
2. Why does there appear to be only a small disadvantage in employment rates of visually impaired persons compared to the rest of the labor force?

The authors speculate that answers to these questions are related to discrimination, discouragement, and disincentives to work.

Implications:

Stress is placed upon the need for precision in definition of terms in similar surveys. Statistics show that vocational disadvantages of workers who are blind have resulted not in higher rates of unemployment, as might be expected, but in lower rates of participation in the job market.

Researchability:

The authors themselves present several areas where in-depth research is badly needed: inferences drawn from the statistics concerning labor force participation, employment, and occupational status are preliminary and not all-inclusive. Similar study needs to be made of the concept of underemployment as related to occupation, education, and income. Once problem areas are pinpointed, programs need to be developed to reduce the unemployment handicap resulting from vision loss.

Coker, G.
EQUAL RESPONSIBILITIES WITH OPPORTUNITIES.
Journal of Visual Impairment and Blindness, 1981, 75, 141-145.

Purpose:

This article encourages educational systems to maintain their standards and not treat a visually impaired student any easier than a sighted student.

Content:

This article begins with three brief incidents with which portray poor attitudes on the part of blind students. These attitudes are in part attributable to the lack of demand for responsibility on the part of educational systems. The author emphasizes that character traits that are goals of school systems should be the same characteristics wanted in the work world.

He describes the decades of the 1960's and 70's as a power struggle which in some ways was productive but in other ways created some poor attitudes. Many visually handicapped children were brought up under the assumption that if they attended classes and handed in their work on time, then promotion was automatic. Some of this problem is attributed to psychologists and their claim that failure should be avoided on the grounds that it is emotionally harmful. This system of automatic promotion guaranteed the student movement from grade to grade but at the same time fostered an attitude of dependence.

Fear is expressed that in our readiness to gain equality for all we may be accepting mediocrity in our schools. Again it is stated that standards cannot be sacrificed; to do so would only place the graduate at a disadvantage when he steps into the competitive work world.

The author looks ahead into the 1980's and sees a major need for accountability from educational systems. Graduates must be qualified for jobs when they finish school; training should not wait until a student is hired. Training programs should be adjusted to the marketplace and focus on producing functional members of society.

Implications:

The more independence that can be produced in the school system, the more the graduate will be prepared to move into an employment position. This factor, along with specific job training, will go a long way toward producing an independent, functional human being.

Researchability:

The major topic to be researched is the development of better training programs while the student is still in school. The article indicates that there has not been a lot of emphasis in this area.

Kirchner, C., & Peterson, R.
ETHNICITY AND REHABILITATION: AN ANALYSIS OF BLIND AND VISUALLY IMPAIRED CLIENTS IN THE FEDERAL STATE VR SYSTEM.
Journal of Visual Impairment and Blindness, 1981, 75, 187-190.

Purpose:

This article investigates the question of whether social differences, in particular ethnicity, are important factors in determining the quality of rehabilitation offered to clients.

Content:

The authors begin with a discussion of the problem and state the lack of research on this issue. Evidence is cited that leads to the conclusion that among all persons with disabilities, non-whites are more likely than whites to be handicapped in work. This could be attributed to a variety of factors, one of which is simple racial discrimination.

Several statistical descriptions are given in the article in an attempt to find out why non-whites seem to be less efficiently served by the rehabilitation process. These descriptions include:

1. an ethnic distribution of blind and visually impaired vocational rehabilitation closures,
2. background characteristics of blind and visually impaired vocational rehabilitation applicants,
3. work status and occupational sector at closure for blind and visually impaired rehabilitants, and
4. a summary of outcomes at selected stages of the vocational rehabilitation process and subsequent employment, by ethnic group.

After reviewing most of the statistical evidence, the authors come to one general conclusion: the vocational rehabilitation system works towards reducing racial inequalities but with limited long-range success.

Implications:

The indication that the system is doing a good job and is not of itself hindering the progress of racial groups does not solve the problem, but it does narrow it. The more research done, the more non-essentials can be eliminated, eventually leading to better employment of non-white visually impaired individuals.

Researchability:

The authors cite major research needs:

1. additional analysis of this particular data base,
2. a further investigation of the indication that the vocational rehabilitation system perpetuates educational differences among ethnic groups, and

3. an investigation of the access to and benefits gained from vocational rehabilitation services among the elderly and severely economically disadvantaged population.

Nyquist, E. B.
THE IMPORTANCE OF EMPLOYING BLIND TEACHERS IN THE PUBLIC SCHOOLS.
The New Outlook for the Blind, 1971, 65, 1-6.

Purpose:

This article argues for the employability of blind and visually impaired persons as teachers. The author describes how teachers with visual disabilities interact in the classroom and in the school.

Content:

The author contends visual impairments are neither a qualification nor a disqualification for teaching. Hiring teachers, sighted and visually impaired, is an act of faith, faith in one's own judgement and in the would-be-teacher's expressed desire to be a good teacher. Over 300 visually impaired persons are employed as teachers (in all grades K-12) in the United States, and 700 in 1968-1969 were preparing for teaching positions. Subjects taught include mathematics, language, English, business, social studies, remedial reading, science, chemistry, and physics. Visually impaired persons are employed also as administrators, curriculum coordinators, and counselors in the public schools.

Qualities necessary for success as a teacher include an interest in children, flexibility and creativity, a cooperative spirit, and professionalism. Additionally, the visually impaired person must be able to anticipate classroom activities which require more vision than he possesses and the extent to which he can incorporate alternate activities using personal strengths.

The author identified factors which must be overcome if visually impaired persons are to be hired as teachers. First is the feeling of uneasiness often experienced by sighted school personnel in the interview and during the first few weeks of school. A second barrier relates to the need for satisfactory orientation and mobility skills--can the teacher get around? The third is related to barriers imagined by others--student cheating, fire drills, chaperoning, advising student activities, maintaining written records, and effective discipline.

Implications:

Blind persons are no more or less qualified to teach than any other subgroup of the population. The emphasis should be on training persons who will be good teachers regardless of their disabilities. For visually impaired persons who are interested, teaching is a viable career area.

Researchability:

Empirical evidence is needed to demonstrate that visually impaired persons are as effective as sighted teachers. Research into the specific techniques used by the visually impaired teachers in the classroom and school is also needed. Instructional techniques which do not rely on visual modes need to be developed.

Dickey, T. W.
MEETING THE VOCATIONAL NEEDS OF THE OLDER BLIND PERSON.
The New Outlook for the Blind, 1975, 69, 218-225.

Purpose:

This article reviews data on the desirability of hiring blind workers age 55 and older along with pointers on responding to employers' objections.

Content:

A vocational need is defined as one in which ultimate satisfaction requires the attainment of remunerative employment. Attention is focused on vocational placement since this service deals most directly with meeting this need. The specific target group dealt with are blind individuals age 65 and older because any technique, program, or strategy that facilitates placement of this age group will also effectively work for blind individuals age 55-64.

The majority of the blind population (about 2/3 of all legally blind persons) is 55 or older. There is also slightly less total blindness in the older age group (64-74) than in the younger age group (20-44). Possession of some degree of vision seems to enhance mobility, often important in meeting vocational needs.

Identifying the kind of employment that may be appropriate for different segments of the older blind population is not easy because data describing the vocational characteristics of this population are not available. However, there exists an adequate supply of information describing the occupational distribution and other vocational characteristics of persons 65 and over in the general work force.

Occupational areas in which blind persons have found substantial employment include, for men, managerial, service, professional, technical, and operations, and for women, clerical, service, professional, technical, sales, and operations. This data demonstrates that age, in and of itself, does not prevent qualified individuals from performing satisfactorily on many of the same kinds of jobs.

In terms of placement services needed by the older blind person, four groups are identified:

1. minimal,
2. average,
3. sheltered, and
4. special.

Group one includes older persons who require little or no help in obtaining employment and will probably never be seen by an agency. Group two requires from moderate to considerable assistance. Group three might require some counseling but no real placement service. Group four requires some help

from the counselor working in cooperation with other agencies. Placement of older blind clients is implemented through the same basic procedures as is the placement of younger blind clients, but a difference lies in the kinds of materials utilized in applying these principles and the emphasis that is given.

The top three objections to hiring older blind clients are:

1. physical requirements,
2. job requirements, and
3. company standards.

Other objections which are somewhat more difficult to answer involve promotions from within, pensions, and work-life expectancy.

Some positive data about employment of the blind involve low rate of job changing, previous work experience, and related areas in which previous work experience is important.

Some areas in which employment of the blind has been highly successful are in vending stand operations and as consultants for the Small Business Administration. "Temporary" companies which hire out retired people are also highly successful because they eliminate many employer objections about fringe benefits. These companies seem to be a valuable resource for helping the counselor to develop part-time or full-time employment for older blind clients.

Implications:

The recognition of the large percentage of older blind people needing vocational help is the first step in the right direction. Recognition of the need along with the continuing effort to properly serve this population can only lead to a larger percentage of vocational success.

Researchability:

A study needs to be done to determine the vocational characteristics of this population of older blind persons. With research in hand, it would be possible to better match-up employers, specific jobs, and clients. This would also serve to point out the occupations most accessible to older blind persons.

Hyman, H. H., Stokes, J., & Strauss, H. M.
OCCUPATIONAL ASPIRATIONS AMONG THE TOTALLY BLIND.
Social Forces, 1973, 51, 403-416.

Purpose:

This article presents the results of a survey concerned with the occupational aspirations of totally blind individuals and their families.

Content:

The article begins by explaining the survey method used and some of the problems encountered in obtaining a representative sample. The final population consisted of 102 children blind since birth or before the age of five, and their families.

The article is written from a social-psychological viewpoint and reports some interesting findings on self-perception of these individuals. In fact, 39% of the blind children surveyed did not consider themselves blind, and in an additional sample, 37% of the blind adults surveyed did not regard themselves as blind. Obviously, some of the self-perception is built in the home environment, hence the decision to survey the families as well.

One of the major comparisons of the study found that among white children, blindness was rarely seen as a handicap that required the lowering of occupational aspirations, while negro children tended to regard blindness as something that would actually raise occupational aspirations. A group of white blind adults responded similarly. The author postulates that the usual burdens of race and social class are in some way lightened for blind individuals. Among negro children who would normally attend ghetto schools where aspiration is often depressed by peer activity, blind children's aspirations are allowed to grow because they are often placed in a different school environment.

The family plays an important role in the aspirations of the child. The mother's role in particular takes on a great deal of significance: distinct parallels between the mother's aspirations for her child and the child's reported aspiration are noted.

Although the occupational aspirations of these blind children are high, they are not unreasonably high; the thoughts of parents and children seem to be founded in reality. The study concludes that blind individuals are not as much involved in fantasy as is often thought, but rather they lead a realistic and sensible search for an occupation.

Implications:

Obviously, blind individuals can strive for some higher occupational goals, and this study has shown that many of these goals are obtainable. The key to expanding future opportunities lies in the ability of the blind individual to increase his scope of realistic occupations and goals.

Researchability:

Further research would be appropriate in an attempt to determine more of the relationship between race, social class, and occupational aspirations. The preliminary signs are encouraging for the self-respect and motivation of the blind individual. An interesting area of study would be to determine the exact influence exerted by the family in regards to occupational aspirations versus the influence of peer and school groups.

OPENING UP SCIENCE CAREERS TO THE HANDICAPPED.
New Outlook for the Blind, 1976, 70, 68.

Purpose:

This article reports on a project designed to open up more careers in scientific fields to handicapped individuals (including people who are blind).

Content:

Since 1974 the American Association for the Advancement of Science has been working with physically handicapped scientists and engineers to develop a project which will concentrate on ways in which scientific professional associations can contribute to equal educational and occupational opportunities for handicapped individuals.

The project's stated purpose is to identify and explore barriers that obstruct the participation of physically handicapped persons in education and careers in science. Its goals include:

1. increased awareness on the part of professional science societies and organizations of the problems of physically disabled individuals in science, and
2. establishment of a network to link the science community to organizations of and for people who are handicapped in order to remove employment barriers.

Methods of obtaining such goals include:

1. improving accessibility of professional scientific organizational meetings to people with handicaps;
2. increasing the awareness of U.S. professional groups of the education and employment needs of disabled members; and
3. developing programs where scientific societies might enhance and fill such educational and employment needs.

Implications:

The field of science opens up a new and broad area of career possibilities to people who are blind and visually impaired. Support of this project by advocates of vocational rehabilitation for people who are blind and visually impaired should provide added professional areas to the already expanding spectrum of job possibilities.

Researchability:

Surveys of various organizations and government agencies of and for people who are handicapped, and of professional scientific associations to elicit suggestions about ways in which existing barriers might be eliminated should

prove helpful in planning such projects. Studies designed to identify capabilities, skills, and traits required in various scientific careers will be essential in guiding blind and visually impaired people into scientific fields.

Davidson, T. M.
THE VOCATIONAL DEVELOPMENT AND SUCCESS OF VISUALLY IMPAIRED ADOLESCENTS.
The New Outlook for the Blind, 1975, 69, 314-316; 319.

Purpose:

This article shows that unsatisfactory employment outcomes for visually impaired adolescents cannot be ascribed solely to inadequate vocational development of the individual.

Content:

The influences of cultural and social patterns and related negative stigmas associated with blind individuals may have a greater influence on unsatisfactory employment outcomes than previously acknowledged. Through an extensive review of literature and with the aid of a Career Development Survey, it was found that visually impaired adolescents are not as vocationally immature as has often been suggested. Cultural patterns of exclusion from certain roles play an important part in the failure of many to enter into the mainstream of American life. While on the surface the status of employment of the visually impaired looks good, closer studies reveal that:

1. Most visually impaired individuals earn below the median U. S. income.
2. The number of occupations open to blind people is limited.
3. Unemployment rates for the visually impaired greatly exceed those of the general population.

In order to effectively combat all of the closed doors and constrictions imposed upon visually impaired people, more effective vocational training and concerted efforts to combat negative attitudes are needed.

Efforts to combat stigmatization would best be met through public relations campaigns entailing constant attention drawn to the fact that visually impaired people can and do lead normal lives. Such a program could be integrated into school curriculums, community relations departments of various agencies, and mass media presentations.

Current efforts to improve and evaluate vocational training programs should be escalated. More detailed studies and closer evaluation of various programs, establishment of a central clearinghouse of information on employment of the blind, and further research to develop opportunities in training schools so as to prepare the visually impaired to enter industry are a few suggestions presented on how current training programs might be improved.

Implications:

Employability of the visually impaired is strongly influenced by cultural and social stigmas. Efforts to increase employment of visually impaired people should center around decreasing negative public attitudes as well as increasing the quality and quantity of training efforts.

Researchability:

An overall analysis of existing studies on public attitudes toward blind people would be essential before an effort to combat such attitudes is initiated. Such attitude studies would then benefit from a plan of action on how to best approach the public to instill attitude changes.

Questions regarding training that should be given more consideration include:

1. What is the nature and the degree of integration of training facilities?
2. Should reliance be placed entirely on local facilities specifically devised for visually impaired people?
3. Should the usefulness of a national facility rather than a local or regional facility be considered for vocational preparation?

Louviere, V.
WHERE BLINDNESS IS A PROVEN ASSET.
Nation's Business, Jan. 1975, 63, 23.

Purpose:

This article reports on a company which hires blind individuals because of their handicap instead of in spite of it.

Content:

The SCM Corporation in Jacksonville, FL manufactures synthetic flavors and fragrances. To ensure consistency among its products, human tasters and smellers are utilized. Ten years ago the company launched an experiment to see whether blind individuals might not be used to test the aroma and flavor of its synthetics. The results proved their blind subjects to be significantly more adept at the task than sighted counterparts. The company now hires blind persons to fill these jobs because of their blindness.

Implications:

Since blind individuals seem to compensate for their blindness by heightening other senses, jobs capitalizing on use of these senses would be most appropriate for blind employees. Tasters and smellers are also used in the food industry and by the USDA to grade and check products for quality. This is but one of many possibilities where a blind individual's handicap may become an asset rather than a drawback.

Researchability:

Although it is assumed logically that blind individuals develop their unimpaired senses to a greater degree than do sighted individuals, empirical validations of such assumptions are difficult to find. More research using larger subject pools is necessary before it can be confidently stated that blind persons have significantly greater acuity of their unimpaired senses than sighted persons.

Findings supporting preexisting assumptions would undoubtedly benefit the employment situation of the blind population.

Stern, H. B.
THE WORKING YEARS 1. EMPLOYMENT.
Journal of Visual Impairment and Blindness, 1981, 75, 90-91.

Purpose:

This article gives an overview of some of the issues involved in the employment of the visually impaired individual.

Content:

The author takes a futuristic view and predicts what he feels will be needed to assure quality employment of visually impaired persons. He suggests that changes in American society do indicate a growth potential in their employability.

One of the first steps to be taken is to influence public policy to allow for housing and transportation needs of the visually impaired. Once this has occurred, then positive changes in employment opportunities can take place.

Much of the discussion in the article is set in the framework of ever-increasing technology and its effects on employment opportunities. Many new jobs are opening to the visually impaired through the use of this technology. The author feels that the visually impaired employee should have the most supportive sensory aids made practically and economically available for his work and daily life functioning.

The major task in the employability of visually impaired individuals is to convince not only the employer to recruit, employ, suitably assign, and retain qualified visually impaired persons, but to convince helping professionals and the visually impaired individual himself to raise both his occupational and educational objectives.

Implications:

With ever-increasing technology, the future can only look brighter than the present. Previously closed occupations are continually being opened to the visually impaired population.

Researchability:

Current technological research and development needs to be continued and increased. Another important area that needs to be researched is the modifications necessary to complete certain jobs and ways that these modifications can be made more efficiently.

Kirchner, C., & Peterson, R.
WORKTIME, OCCUPATIONAL STATUS, AND ANNUAL EARNINGS: AN ASSESSMENT OF UNDEREMPLOYMENT.
Journal of Visual Impairment and Blindness, 1980, 74, 203-205.

Purpose:

This article presents a statistical analysis of the difference between visually handicapped and other workers to determine if underemployment is indeed a problem for the visually handicapped.

Content:

The authors begin by differentiating underemployed from unemployed, suggesting that the former may be a more descriptive term and may be more of a problem than the latter. Difficulties in assessing underemployment mentioned include the lack of a standard measure of underemployment and the lack of a standard definition of blindness. One aspect of underemployment is people who would like to work more regularly than they do. Some of the personal difficulties associated with this are listed, and several statistical comparisons are presented. The general finding (using as a criteria the number of hours worked per week and the number of weeks worked per year) is that the visually impaired employee works the equivalent of two months of full-time work less per year than do other American workers.

Occupational status is a second criterion used to measure underemployment. Evidence is not strong here, but it does appear that when visually handicapped individuals are compared to other U.S. workers, occupational status is not in keeping with educational achievements. There appears to be little difference between the sexes on this point.

A third criterion used to measure underemployment is annual earnings. Visually handicapped individuals earned significantly less than sighted workers within each of the categories of occupational status studied.

Some trends that developed during the study (which the authors emphasize should be treated as hypotheses and not fact) include:

1. Visually impaired workers obtain jobs which require less performance.
2. Any skills and credentials they gain from higher education are less likely to bring a payoff in terms of occupational status.
3. In turn, higher occupational status has less of a pay-off in earnings.
4. The skills and seniority gained with age have less impact on earnings.

The general conclusion drawn is that visually impaired individuals do indeed suffer from a problem of relative underemployment; discrimination is still a primary cause.

Implications:

The outlook for employment of visually handicapped people, while not now very positive, is slowly changing; hopefully this trend will continue. While some still suffer under an unfair system, efforts must be made to decrease discrimination and build a more equitable system.

Researchability:

The areas of study reported could use a great deal of tightly controlled research to verify findings. One specific example mentioned by the authors is the use of a more limited, highly educated sample to determine occupational status differences. Research could also be done in an effort to determine if the three criteria in this study are sufficient.

REHABILITATION PROFESSIONAL

EDUCATION NEEDS

Clark, L. L.
RESEARCH RESOURCE NEEDS FOR THE FUTURE.
The New Outlook for the Blind, 1975, 69, 49-61.

Purpose:

The article presents an overview of past, present, and future research limitations and potentials, an overview designed to make future research more productive both in design and results.

Content:

The author discusses needs pointed out by past research efforts, including:

1. documentation of previous research activity,
2. a central information center and visual aid collection to provide information to as many future researchers as possible,
3. avoidance of the assumption that one breakthrough can solve all problems,
4. distinction between development and use of everyday aids--and more complex and well developed systems technology,
5. a centralized funding organization, and
6. the hiring and training of individuals skilled in research utilization and technology utilization.

The importance of the distinction between different levels of visual impairement (defined as the social reaction to that impairment on the part of others) was strongly emphasized. With increasing technology, the deficit in visual function can be lessened if not totally erased, leaving only the social aspect to be overcome.

Implications:

The development of new aids combined with the manufacturing of a greater number of previously developed aids serves a two-fold purpose:

1. It allows for more individuals to be involved in occupations where necessary aids had previously been difficult to obtain.
2. It opens up new employment fields.

Some aspects of future research called for include an effective means of evaluating research progress and an attempt to develop specific theoretical models that provide a base line from which to operate both on current and future related projects.

Researchability:

Obviously the development of new aids in previously closed occupational areas would be a major priority. Also of importance is the idea of determining to what extent certain subgroups of the blind population can be helped to overcome their visual handicap (social perception by others) by use of certain technological interventions.

Needham, W. L.
A VOCATIONAL AIDS RESOURCE FILE FOR THE VISUALLY IMPAIRED.
Journal of Visual Impairment and Blindness, 1979, 73, 283; 285; 287.

Purpose:

This article reports on an informational resource bank for vocation-related assistive devices for blind and visually impaired persons.

Content:

In an effort to overcome the lack of information on assistive devices needed for gaining employment, the Florida Division of Blind Services established a resource file that would provide Division counselors with current information on vocation-related assistive aids. The file is designed for continuous update, and counselors may request copies of information on specific devices. Unique functions of the information file include evaluative comments on devices and index access by job function.

Implications:

There seems to be little doubt that well-designed assistive devices, properly suited to the user and to the job, are opening new employment areas for the visually impaired. Resource files such as the one described in this article are an important step toward increasing the awareness of consumers, counselors, and employers about ways in which jobs can be made accessible to everyone.

Researchability:

Communication and feedback from users of various assistive devices listed in such a resource file would provide useful information from which to compile evaluative statements about each product. Such evaluations could provide counselors, employers, and consumers with information as to which aid performed better under given circumstances or which one might be preferred by consumers. Such independent evaluations are still infrequent and even more rare for vocation-related equipment.

Research may also be directed toward developing similar resource files in such areas as orientation and mobility, recreation, and educational aids for the visually impaired.

Day, R. R.
WORKSHOP ON TECHNOLOGICAL AIDS: EXPANDING VOCATIONAL OPPORTUNITIES.
Journal of Visual Impairment and Blindness, 1980, 74, 129-131.

Purpose:

This article describes the first workshop on technological developments in the field of blindness.

Content:

Arkansas Enterprises for the Blind hosted a four day workshop with the objective of increasing rehabilitation counselors' awareness of how technological aids can be used to enhance their clients' vocational opportunities. Since the modification of working environments is often necessary to expand career opportunities for visually impaired people, counselors must be familiar with technological advances in the field that can be used to accomplish such modification. It was hoped by the sponsors of this workshop that by increasing the participants' awareness of what is available, a desire to initiate steps leading to the purchase of appropriate technological aids would be instilled.

The workshop included lectures on recent technological advances of visual aids by leaders in the field and practical demonstrations of most of the latest devices. The results of a questionnaire distributed to participants after the conference indicated that the workshop had achieved its objective.

Implications:

Counselors and administrators in the field of blindness tend to be uninformed about how technological aids can enhance job opportunities for their clients. Furthermore, most are relatively unaware of what aids are available. On the basis of feedback from workshop participants, similar workshops of this nature are needed to help professionals in the field play a more significant role in expanding vocational horizons for their clients.

Researchability:

Further research in this direction could focus on nationwide surveys of personnel involved with vocational rehabilitation for the blind. These surveys might ascertain the level of awareness that such personnel possess regarding recent technological advances in the field.

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